

SHARP®

LC-40LE730E

LC-40LE731E

LC-40LE732E

LC-46LE730E

LC-46LE731E

LC-46LE732E

LCD COLOUR TELEVISION

LCD-FARBFERNSEHGERÄT

**TÉLÉVISEUR COULEUR À ÉCRAN
CRISTAUX LIQUIDES (LCD)**

TELEVISORE A COLORI LCD

LCD-KLEURENTELEVISIE

TELEVISIÓN EN COLOR LCD

TELEVISOR DE CRISTAL LÍQUIDO

OPERATION MANUAL

BEDIENUNGSANLEITUNG

MODE D'EMPLOI

MANUALE DI ISTRUZIONI

GEBRUIKSAANWIJZING

MANUAL DE INSTRUCCIONES

MANUAL DE OPERAÇÃO

AQUOS
LED 3D



ENGLISH

DEUTSCH

FRANÇAIS

ITALIANO

NEDERLANDS

ESPAÑOL

PORTUGUÊS



DivX®

DivX Certified® to play DivX® video up to HD 1080p, including premium content.


ABOUT DIVX VIDEO: DivX® is a digital video format created by DivX, LLC, a subsidiary of Rovi Corporation. This is an official DivX Certified® device that plays DivX video. Visit divx.com for more information and software tools to convert your files into DivX videos.

ABOUT DIVX VIDEO-ON-DEMAND: This DivX Certified® device must be registered in order to play purchased DivX Video-on-Demand (VOD) movies. To obtain your registration code, locate the DivX VOD section in your device setup menu. Go to vod.divx.com for more information on how to complete your registration.

Covered by one or more of the following U.S. Patents:

7,295,673; 7,460,668; 7,515,710; 7,519,274

SPECIAL NOTE FOR USERS IN THE U.K.

The mains lead of this product is fitted with a non-rewireable (moulded) plug incorporating a 13A fuse. Should the fuse need to be replaced, a BSI or ASTA approved BS 1362 fuse marked  and of the same rating as above, which is also indicated on the pin face of the plug, must be used.

Always refit the fuse cover after replacing the fuse. Never use the plug without the fuse cover fitted.

In the unlikely event of the socket outlet in your home not being compatible with the plug supplied, cut off the mains plug and fit an appropriate type.

DANGER:

The fuse from the cut-off plug should be removed and the cut-off plug destroyed immediately and disposed of in a safe manner.

Under no circumstances should the cut-off plug be inserted elsewhere into a 13A socket outlet, as a serious electric shock may occur.

To fit an appropriate plug to the mains lead, follow the instructions below:

IMPORTANT:

The wires in the mains lead are coloured in accordance with the following code:

Blue: Neutral

Brown: Live

As the colours of the wires in the mains lead of this product may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

- The wire which is coloured blue must be connected to the plug terminal which is marked N or coloured black.
- The wire which is coloured brown must be connected to the plug terminal which is marked L or coloured red.

Ensure that neither the brown nor the blue wire is connected to the earth terminal in your three-pin plug. Before replacing the plug cover make sure that:

- If the new fitted plug contains a fuse, its value is the same as that removed from the cut-off plug.
- The cord grip is clamped over the sheath of the mains lead, and not simply over the lead wires.

IF YOU HAVE ANY DOUBT, CONSULT A QUALIFIED ELECTRICIAN.



- The illustrations and the OSD in this operation manual are for explanation purposes and may vary slightly from the actual operations.
- The examples used throughout this manual are based on the LC-40LE730E model.
- The LC-40LE730E, LC-40LE731E, LC-40LE732E, LC-46LE730E, LC-46LE731E and LC-46LE732E models are compatible with high definition broadcasts, H.264 compressed (MPEG4 H.264, MPEG4 AVC, MPEG4 AVC/H.264).

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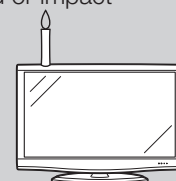
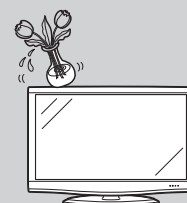
Introduction

Dear SHARP customer

Thank you for your purchase of the SHARP LCD colour TV product. To ensure safety and many years of trouble-free operation of your product, please read the Important Safety Precautions carefully before using this product.

Important Safety Precautions

- **Cleaning**—Unplug the AC cord from the AC outlet before cleaning the product. Use a damp cloth to clean the product. **Do not use liquid cleaners** or aerosol cleaners.
- Use a soft damp cloth to gently wipe the panel when it is dirty. To protect the panel, do not use a chemical cloth to clean it. Chemicals may cause damage or cracks in the cabinet of the TV.
- **Water and moisture**—Do not use the product near water, such as bathtub, washbasin, kitchen sink, laundry tub, swimming pool and in a wet basement.
- Do not place vases or any other water-filled containers on this product. The water may spill onto the product causing fire or electric shock.
- **Stand**—Do not place the product on an unstable cart, stand, tripod or table. Doing so can cause the product to fall, resulting in serious personal injuries as well as damage to the product. Use only a cart, stand, tripod, bracket or table recommended by the manufacturer or sold with the product. When mounting the product on a wall, be sure to follow the manufacturer's instructions. Use only the mounting hardware recommended by the manufacturer.
- When relocating the product placed on a cart, it must be moved with utmost care. Sudden stops, excessive force and uneven floor surface can cause the product to fall from the cart.
- **Ventilation**—The vents and other openings in the cabinet are designed for ventilation. Do not cover or block these vents and openings since insufficient ventilation can cause overheating and/or shorten the life of the product. Do not place the product on a bed, sofa, rug or other similar surface, since they can block ventilation openings. This product is not designed for built-in installation; do not place the product in an enclosed place such as a bookcase or rack, unless proper ventilation is provided or the manufacturer's instructions are followed.
- The LCD panel used in this product is made of glass. Therefore, it can break when the product is dropped or impact applied. If the LCD panel is broken, be careful not to be injured by broken glass.
- **Heat sources**—Keep the product away from heat sources such as radiators, heaters, stoves and other heat-generating products (including amplifiers).
- **Headphones**—Do not set the volume at a high level. Hearing experts advise against extended listening at high volume levels.
- To prevent fire, never place any type of candle or naked flames on the top or near the TV set.
- To prevent fire or shock hazard, do not place the AC cord under the TV set or other heavy items.
- Do not display a still picture for a long time, as this could damage the LCD screen.
- There is power consumption always if main plug is connected. Be aware that only way to disconnect mains power from your TV is to unplug mains plug from the wall, it shall remain readily operable during use of your product.
- **Servicing**—Do not attempt to service the product yourself. Removing covers can expose you to high voltage and other dangerous conditions. Request a qualified person to perform servicing.



The LCD panel is a very high technology product, giving you fine picture details.

Due to the very large number of pixels, occasionally a few non-active pixels may appear on the screen as a fixed point of blue, green or red. This is within product specifications and does not constitute a fault.

Precautions when transporting the TV

When transporting the TV, never carry it by holding onto the speakers. Be sure to always carry the TV by two people holding it with two hands—one hand on each side of the TV.

Cautions regarding use in high and low temperature environments

- When the TV is used in a low temperature space (e.g. room, office), the picture may leave trails or appear slightly delayed. This is not a malfunction, and the TV will recover when the temperature returns to normal.
 - Do not leave the TV in a hot or cold location. Also, do not leave the TV in a location exposed to direct sunlight or near a heater, as this may cause the cabinet to deform and the LCD panel to malfunction.
- Storage temperature: -20 °C to +60 °C.

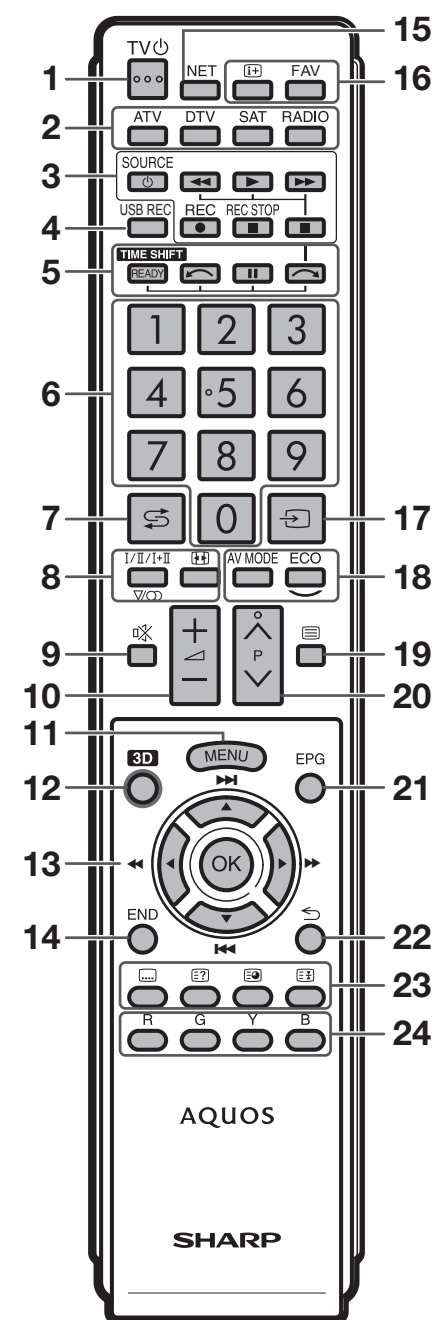


Caution : DANGEROUS VOLTAGE INSIDE !

TO PREVENT ELECTRIC SHOCK, DO NOT REMOVE COVER. NO-USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONAL.

Remote control unit

- 1 **TV** (Standby/On) (Page 10)
- 2 **ATV**
Access conventional analogue TV mode.
DTV
Access digital TV mode.
SAT
Access satellite mode.
RADIO
DTV/SAT: Switch between radio and data mode.
• When only data broadcasting (no radio broadcasting) is transmitted by DVB, the radio broadcasting will be skipped.
- 3 **HDMI CEC buttons** (Pages 29 and 30)
- 4 **USB REC** (Pages 11, 20, 34 and 35)
Record a programme you are watching.
- 5 **TIME SHIFT**
Not used.
- 6 **Numeric buttons 0–9**
Set the channel. Enter desired numbers. Set the page in teletext mode.
• When the five Nordic countries (Sweden, Norway, Finland, Denmark or Iceland) are selected in the country setting from initial auto installation (Page 9), DTV services are four digits. When another country is selected, DTV services are three digits.
- 7 **Flashback**
Return to the previously selected channel or external input.
- 8 **I/II/I+II (Sound mode)** (Page 20)
Select a sound multiplex mode.
Picture format (Page 26)
Change between different picture formats.
- 9 **Mute**
TV sound on/off.
- 10 **+/- (Volume)**
Increase/decrease TV volume.
- 11 **MENU**
“Menu” screen on/off.
- 12 **3D** (Page 36)
Select between 3D and 2D image viewing.
- 13 **▲/▼/◀/▶ (Cursor)**
Select a desired item.
USB REC/Media Player/Home Media:
◀◀ / ▶▶
Rewind and fast forward.
◀◀ / ▶▶
Rewind and forward in units of 5 minutes.
OK
Execute a command.



- 14 **END**
ATV/DTV/SAT: Exit the “Menu” screen.
- 15 **NET**
Access “Connected TV” mode. (Page 31)
- 16 **Channel information** (Page 25)
Display the station information (channel number, signal, etc.) on the screen.
FAV
Shows the favourite channels list.

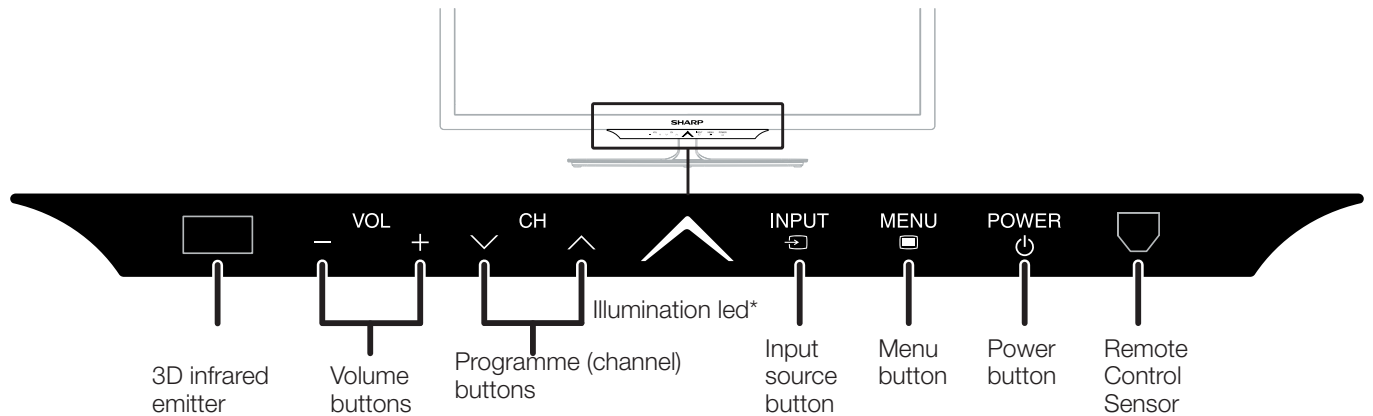
- 17 **Source List** (Page 10)
Select an input source.
- 18 **AV MODE** (Page 19)
Select audio/video settings.
ECO
On/Off (Page 28)
Select “Power save” setting.
- 19 **Teletext** (Page 12)
ATV: Display analogue teletext.
DTV/SAT: Select MHEG-5 or teletext for DTV/SAT.
- 20 **P/V**
ATV/DTV/SAT: Select the TV channel.
NET: Scrolls pages up/down.
- 21 **EPG** (Page 11)
DTV/SAT: Display the EPG screen.
- 22 **Return**
ATV/DTV/SAT: Return to the previous “Menu” screen.
NET: Return to the previous page (This may not function for some services).
- 23 **Buttons for useful operations**
Subtitle (Pages 10, 12 and 24)
Switch subtitle languages on/off.
Reveal hidden teletext (Page 12)
Subpage (Page 12)
Freeze/Hold (Page 12)
Teletext: Stop updating teletext pages automatically or release the hold mode.
- 24 **R/G/Y/B Colour buttons**
The coloured buttons are correspondingly used to select the coloured items on the screen (e.g., EPG, MHEG-5, teletext).

Important information:

Satellite services are only available for the LE732 model series.

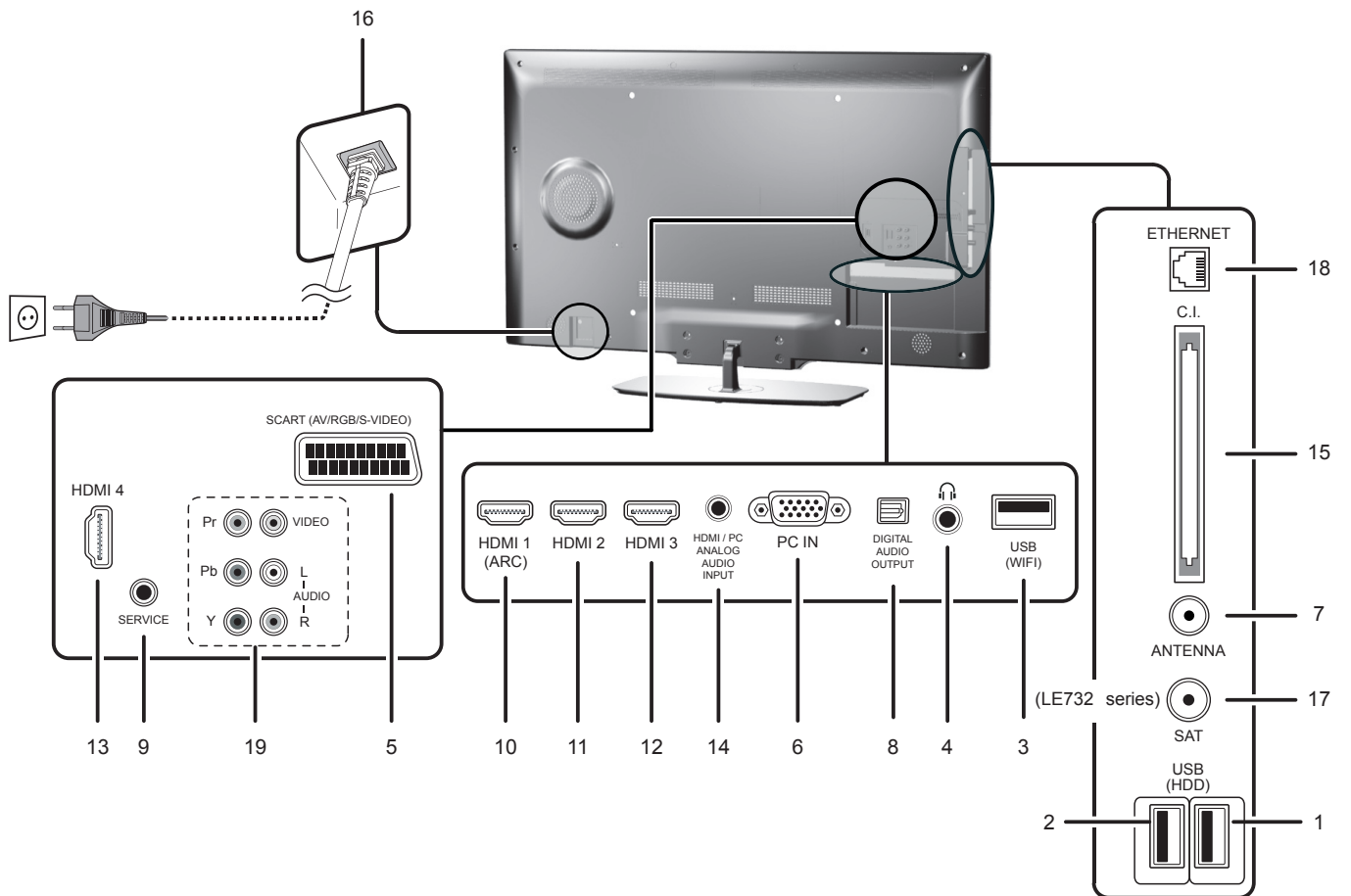
Introduction

TV (Front view)



*TV indicator status (Page 10)

TV (Side and rear view)



- | | | |
|--|---|--|
| <p>1 USB terminal (USB REC / MEDIA PLAYER / SOFTWARE / HDD READY / 3D GLASSES BATTERY)</p> <p>2 USB terminal (MEDIA PLAYER / SOFTWARE / HDD READY / 3D GLASSES BATTERY)</p> <p>3 USB terminal (Wi-Fi use only)</p> <p>4 HEADPHONES jack</p> <p>5 SCART (AV/RGB, Y/C Input) terminal</p> | <p>6 PC Input</p> <p>7 Antenna input terminal</p> <p>8 OPTICAL DIGITAL AUDIO OUTPUT terminal (SPDIF)</p> <p>9 SERVICE connector (jack 3.5 mm)</p> <p>10 HDMI 1 (HDMI/DVI/ARC)</p> <p>11 HDMI 2 (HDMI/DVI)</p> <p>12 HDMI 3 (HDMI/DVI)</p> <p>13 HDMI 4 (HDMI/DVI)</p> | <p>14 AUDIO input for DVI and PC (Jack 3.5mm connector)</p> <p>15 COMMON INTERFACE slot</p> <p>16 AC INPUT terminal</p> <p>17 SAT (Satellite antenna input) (Only LE732 series)</p> <p>18 ETHERNET (10/100) terminal</p> <p>19 COMPONENTS / AV terminals</p> |
|--|---|--|

WARNING

- Excessive sound pressure from earphones and headphones can cause hearing loss.
- Do not set the volume at a high level. Hearing experts advise against extended listening at high volume levels.

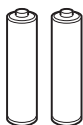
Preparation

Supplied accessories

Remote control unit
(×1)



• “AAA” size battery (×2)

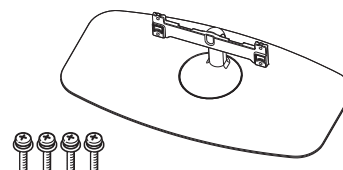


• Operation manual (This publication)

• Cable tie (x1)



• Stand unit (x1)



Attaching the stand unit

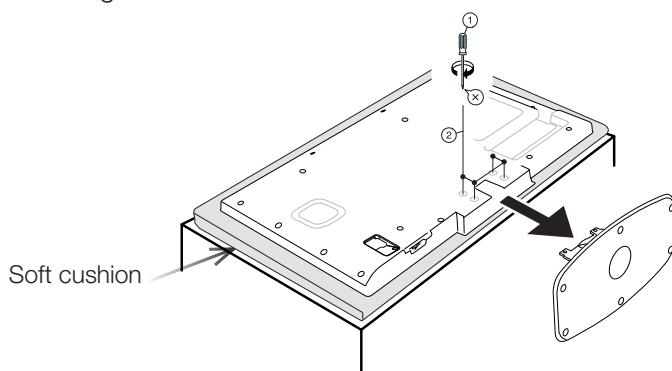
- Before attaching (or detaching) the stand, unplug the AC cord.
- Before performing work, spread cushioning over the surface on which you will be laying the TV. This will prevent it from being damaged.

CAUTION

- **Attach the stand in the correct direction.**
- **Be sure to follow the instructions. Incorrect installation of the stand may result in the TV falling over.**

Inserting the stand

- ① Insert the stand into the openings on the bottom of the TV (Hold the stand so it will not drop from the edge of the base area).
- ② Insert and tighten the four screws into the four holes on the rear of the TV.



NOTE

- To detach the stand unit, perform the above steps in reverse order.

Optional accessory

The listed optional accessories are available for this LCD colour TV. Please purchase them at your nearest shop.

- Additional optional accessories may be available in the near future. When purchasing, please read the newest catalogue for compatibility and check the availability.

No.	Part name	Part number
1	Wall mount bracket	AN-37AG5
2	Wi-Fi adapter	AN-WUD630
3	3D glasses	AN-3DG20-B

Fixing the TV on a wall

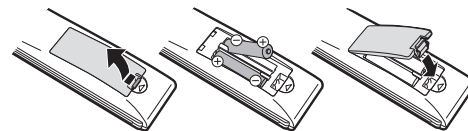
- **This TV should be fixed on a wall only with the wall fix bracket available from SHARP (above table). The use of other wall fix brackets may result in an unstable installation and may cause serious injuries.**
- **Fixing the LCD colour TV requires special skills and should only be performed by qualified service personnel. Customers should not attempt to do the work themselves. SHARP bears no responsibility for improper fixing or fixing that results in accident or injury.**
- You can ask qualified service personnel about using an optional bracket to fix the TV on a wall.
- To use this TV fixed on a wall, first remove the adhesive tape at the two locations on the rear of the TV, and then use the screws supplied with the wall fix bracket to secure the bracket to the rear of the TV.
- When you fix the TV on a wall, you should attach the supporting post.

Preparation

Inserting the batteries

Before using the TV for the first time, insert the two supplied “AAA” size batteries. When the batteries become depleted and the remote control unit fails to operate, replace the batteries with new “AAA” size batteries.

- 1 Open battery cover.
- 2 Insert two supplied “AAA” size batteries.
 - Place batteries with their terminals corresponding to the (+) and (-) indications in the battery compartment.
- 3 Close the battery cover.



CAUTION

Improper use of batteries can result in chemical leakage or explosion. Be sure to follow the instructions below.

- Do not mix batteries of different types. Different types of batteries have different characteristics.
- Do not mix old and new batteries. Mixing old and new batteries can shorten the life of new batteries or cause chemical leakage in old batteries.
- Remove batteries as soon as they have worn out. Chemicals that leak from batteries can cause a rash. If you find any chemical leakage, wipe thoroughly with a cloth.
- The batteries supplied with this product may have a shorter life expectancy due to storage conditions.
- If you will not be using the remote control unit for an extended period of time, remove the batteries from it.
- When replacing the batteries, use zinc-carbon batteries instead of alkaline ones.

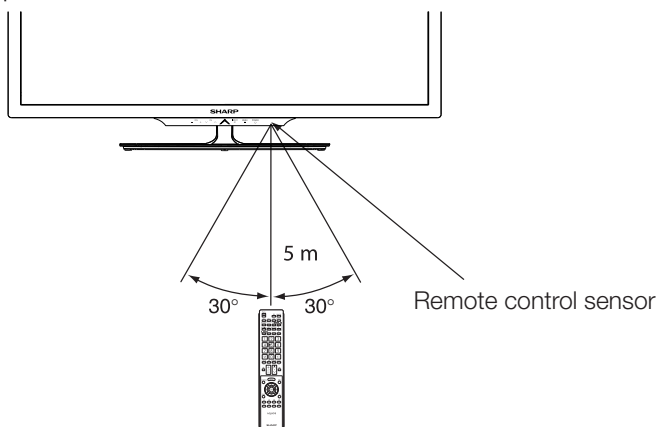
Note on disposing batteries:

The batteries provided contain no harmful materials such as cadmium, lead or mercury.

Regulations concerning used batteries stipulate that batteries may no longer be thrown out with the household rubbish. Deposit any used batteries free of charge into the designated collection containers set up at commercial businesses.

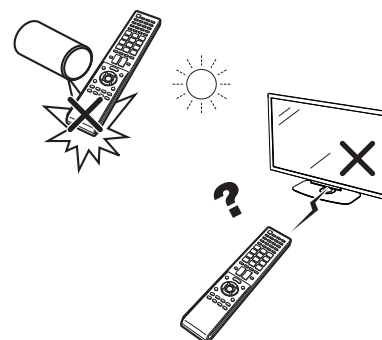
Using the remote control unit

Use the remote control unit by pointing it towards the remote control sensor. Objects between the remote control unit and sensor may prevent proper operation.



Cautions regarding the remote control unit

- Do not expose the remote control unit to shock. In addition, do not expose the remote control unit to liquids, and do not place in an area with high humidity.
- Do not install or place the remote control unit under direct sunlight. The heat may cause deformation of the unit.
- The remote control unit may not work properly if the remote control sensor of the TV is under direct sunlight or strong lighting. In such cases, change the angle of the lighting or the TV, or operate the remote control unit closer to the remote control sensor.



Quick guide

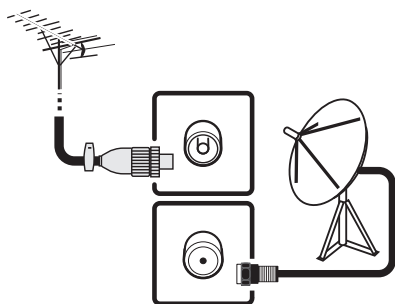
Initial installation overview

Follow the steps below one by one when using the TV for the first time. Some steps may not be necessary depending on your TV installation and connection.

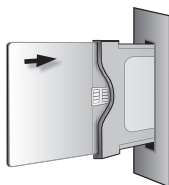
1

Preparation

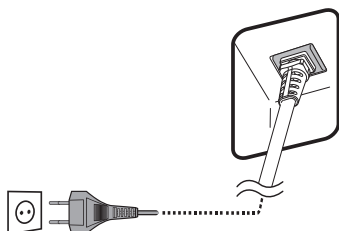
- 1 Connect an antenna cable to the antenna terminal (Page 8).



- 2 If necessary, insert a CA card into the CI slot to watch scrambled broadcasts (Page 8.)




- 3 Plug in the AC cord (Page 8).

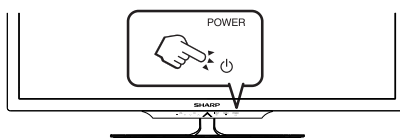


Product shape varies in some countries.

2

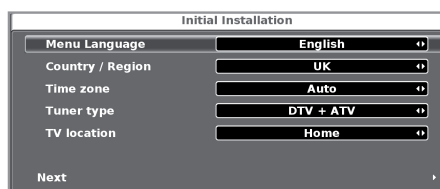
Power on and run the auto installation

- 1 Turn on the power using  on the TV (Page 10).



- 2 Run the initial auto installation (Page 9).

✓ Language, country, tuner type settings and TV Location setting.



✓ Go to **Next**.



Start searching channels

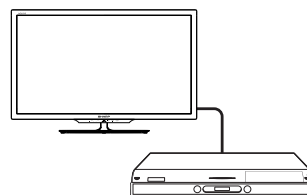
3

Watch TV

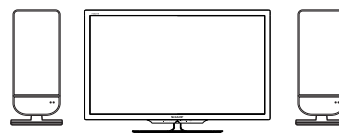
- 1 **Congratulations!**
Now you can watch TV.
- 2 If necessary, adjust the antenna to attain maximum signal reception (Page 9).

Connect external devices

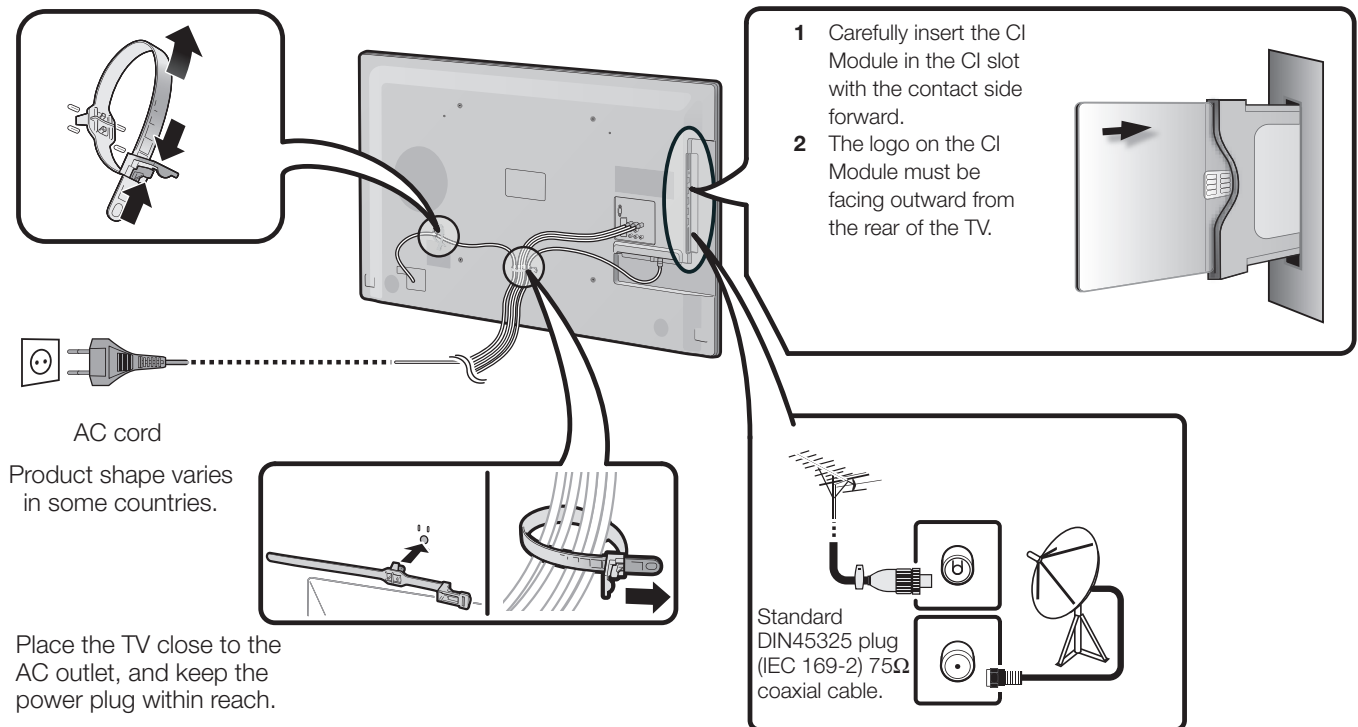
- 1 Connect external devices such as a DVD player/recorder as instructed (Pages 13, 14 and 15).



- 2 Connect external audio devices such as speakers/amplifier as instructed (Pages 13, 14 and 15).



Before turning on the power

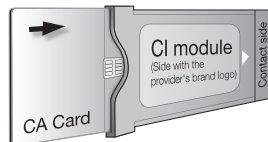


Inserting a CA Card

In order to receive coded digital stations, a Common Interface Module (CI Module) and a CA Card must be inserted in the CI slot of the TV. The CI Module and the CA Card are not supplied accessories. They are usually available from your dealers.

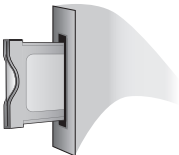
Inserting the CA Card into the CI Module

- 1 With the side with the gold coloured contact chip facing the side of the CI Module marked with the provider's logo, push the CA Card into the CI Module as far as it will go. Note the direction of the arrow printed on the CA Card.



Inserting the CI Module in the CI slot

- 2 Carefully insert the CI Module in the CI slot with the contact side forward. The logo on the CI Module must be facing outward from the rear of the TV. Do not use excessive force. Make sure the module is not bent in the process.



NOTE

- Make sure that the CI module is properly inserted.
- This menu is only available for digital stations.
- It takes about 30 seconds to certify the license key when you insert a CA card into the CI+ compatible CI module for the first time. This process may fail when there is no antenna input or you have never run "Auto installation".
- The CI+ compatible CI module sometimes upgrades its firmware. You may not receive any TV images before upgrading. You can only use the power button during upgrading.
- The CI+ compatible CI module does not allow you to output any copy protected programmes using monitor out.
- If the TV displays an update confirmation message for the CA card while receiving CI+ compatible broadcasts, follow the screen prompts.

Checking CI Module information

- 1 Press **MENU** and the "PICTURE" menu is shown.
- 2 Press **◀/▶** to select "CHANNEL" menu.
 - The content of this menu depends on the provider of the CI Module.
- 3 Press **▲/▼** to select "CI information", and then press **OK**.

Module

General information on CI Module displays.

Menu

Adjustment parameters of each CA Card displays.

Enquiry

You can input numerical values such as passwords here.

NOTE

The content of each screen depends on the provider of the CI Module.






Quick guide

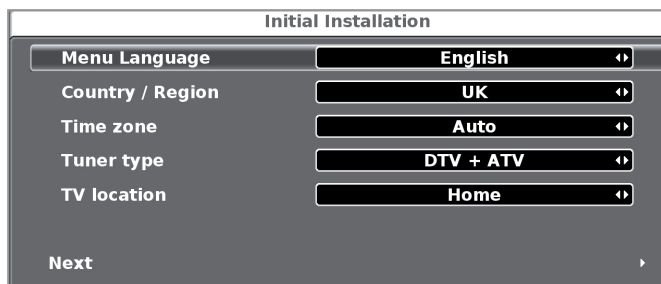
Initial auto installation

When the TV is powered on for the first time after purchase, the initial auto installation wizard appears. Follow the menus and make the necessary settings one after another.

Confirm the following before turning on the power

- Is the antenna cable connected?
- Is the AC cord plugged in?









- 1 Press  on the TV.
 - The initial auto installation wizard appears.
- 2 Setting the OSD language.
Press /// to select the desired language.

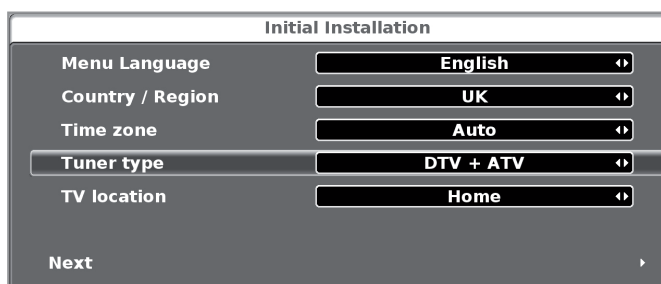


The screen shows the 'Initial Installation' menu with the following options:

Menu Language	English
Country / Region	UK
Time zone	Auto
Tuner type	DTV + ATV
TV location	Home

Next

- 3 Setting the country.
Press /// to select your country or area.
 - This setting screen only appears during the initial auto installation.
- 4 Select time zone.
- 5 Select broadcast settings.
Press / to select "**Tuner type**". Press / to select between different tune type:



The screen shows the 'Initial Installation' menu with the following options:

Menu Language	English
Country / Region	UK
Time zone	Auto
Tuner type	DTV + ATV
TV location	Home

Next

CADTV: Cable digital broadcasts.

ATV: Analogue broadcasts.

DTV: Digital broadcasts.

DTV + ATV: Digital and analogue broadcasts.

CADTV+ATV: Cable and analogue broadcasts.



SADTV: Satellite broadcasts.

SADTV + ATV: Satellite and analogue broadcasts.

- 6 Selecting the TV location.



The screen shows two buttons: 'Home' and 'Store'.

Press / to select where you will use this TV, and then press **OK**.

•**HOME:** For domestic use.

•**STORE:** **DYNAMIC** mode is predetermined. If the

Picture Mode is changed, the TV will automatically switch back to **DYNAMIC** when there is no signal input from the TV or remote control unit for 30 minutes.

If you have chosen **STORE** by mistake, go to **Settings** → **Restore Factory Default** → **OK**, and the TV returns to the initial screen.

- 7 Starting channel search.

Press  to select **Next** and then press **OK**.

- If you want to search for more broadcasts, execute "DTV (or ATV, or CADTV) manual tuning" from the menu "CHANNEL" (Page 22).
- To watch both analogue broadcasts and digital broadcasts, you should perform the channel search setting "DTV+ATV" or "CADTV+ATV".
- Is not possible to search digital and cable digital broadcasts at the same time.

- 8 The TV searches for, sorts and stores all the receivable TV stations according to their settings and the connected antenna.




- To cancel the initial auto installation in progress, press **END**.

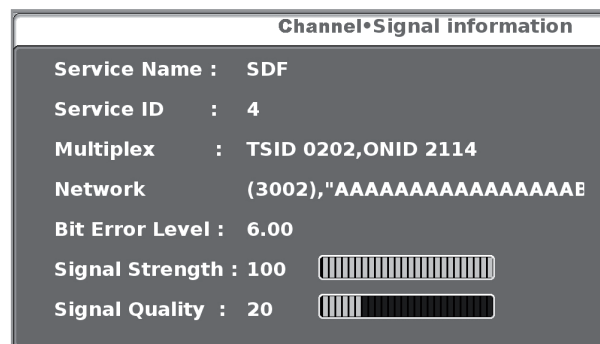
NOTE

- If you turn the power on the TV after performing step 4, initial auto installation wizard does not appear. The auto installation function allows you to execute the installation again from the **Channel** menu (Page 22).
- When "France" is selected in the **Country** setting, the PIN code setting cannot be skipped.
- After initial Auto Tuning is completed, the default PIN is automatically set to "**3001**". To change the PIN setting, refer to **Lock** menu on page 21.



Checking quality and signal strength

If you install a DVB-T/T2/S/S2 antenna for the first time of relocate it, you should adjust the alignment of the antenna to receive a good reception while checking the antenna setup screen.

- 1 Press a channel you want to check.
- 2 Press **MENU**.
- 3 Press  to select "**Channel**" menu and then press **OK**.
- 4 Press / to select "**Signal Information**" and then press **OK**.



The screen shows the following information:

Channel•Signal information	
Service Name :	SDF
Service ID :	4
Multiplex :	TSID 0202,ONID 2114
Network :	(3002),"AAAAAAAAAAAAAAAAAAE
Bit Error Level :	6.00
Signal Strength :	100 
Signal Quality :	20 

- 5 Position and align the antenna so that the maximum possible values for "Signal Strength" and "Signal Quality" are obtained.

NOTE

- The values of "Signal Strength" and "Signal Quality" indicate when to check the appropriate alignment of the antenna.

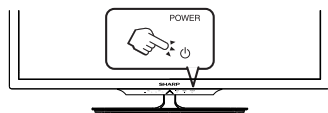
Watching TV

Daily operation


Switching on/off

Turning on/off the power

Press  on the TV to switch it on.
Switch it off by pressing  on the TV.




NOTE


- When turning off the power using  on the TV, EPG data will be lost.
- The terminal layout may differ depending on the model.

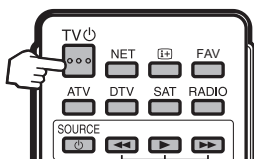
Standby mode

Switching to standby mode

If the TV is switched on (BLUE LED), you can switch it to standby by pressing TV  on the remote control unit.

Switching on from standby


From standby (RED LED), press TV  on the remote control unit.



TV indicator status

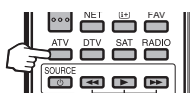
LED indicator	Status
Off	Power off
Blue	Power on
Red	Standby
Violet	StandBy with USB REC programmed

NOTE

- If you are not going to use this TV for a long period of time, be sure to remove the AC cord from the AC outlet.
- A small amount of electric power is still consumed even when  is turned off.

Switching between digital, satellite and analogue broadcasts

- Press "ATV", "DTV", "SAT" or "RADIO" to change between modes.

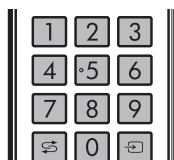


Changing channels


With P  :

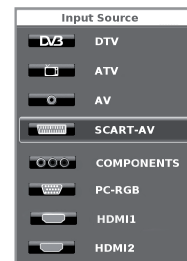


With 0-9:



Selecting an external video source

Once the connection is made, press  to display the "Source List" screen, and then press / to switch over to the appropriate external source with **OK**.



Selecting audio language

DTV/CADTV/SAT mode:


Each time you press , the audio language switches between audio sources available.



NOTE

- The audio mode screen disappears in three seconds.
- Selectable items vary depending on the received broadcasts.

ATV mode:

Each time you press , the mode switches as shown in the following tables.


NICAM TV broadcasts selection	
Signal	Selectable items
Stereo	NICAM STEREO, MONO
Bilingual	NICAM CH A, NICAM CH B, NICAM CH AB, MONO
Monaural	NICAM MONO, MONO
A2 TV broadcasts selection	
Signal	Selectable items
Stereo	STEREO, MONO
Bilingual	CH A, CH B, CH AB
Monaural	MONO

NOTE

- When no signal is received, the audio mode will display "MONO".


Switching subtitle languages

DTV/CADTV/SAT mode:

Press SUBTITLES  button to change between different languages available, or to enabled/disabled the subtitles.



ATV mode:

The available subtitles according to the broadcasting will be enabled or disabled by pressing the SUBTITLES  key.

EPG

EPG is a programme list that is displayed on the screen. With the EPG, you can check the schedule of digital channels, view detailed information about it, tune to an event currently on-air and set a timer for future events.

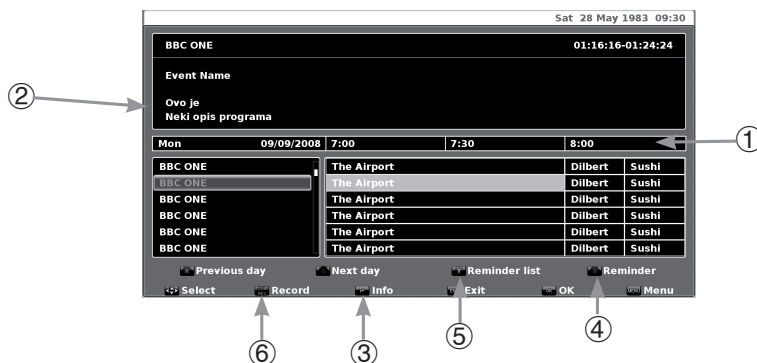
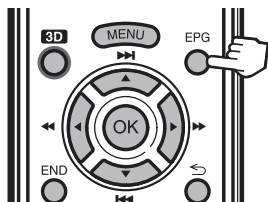
Selecting a programme using EPG

Basic Operation

The illustrations on this page are explained using three digit services.

● Display/Close the EPG screen

Press **EPG**.



● Select a program

① Select the time span

- Press **◀/▶** to select the time span you want to search, press **OK**.
 - Continue to press **▶** to display programs in the next time span.

② Select the desired program

- Press **▲/▼** to select the desired program, press **OK**.
 - If **▲** or **▼** are displayed on the left of the programs, continue to press **▲/▼** to display next or previous screen.
- Press **END** to exit of EPG.

Other EPG functions

③ Revise the program information

- 1 Press **▲/▼/◀/▶** to select the program you want to revise.
- 2 Press **i+**.

Program information



- 3 Press **i+** to return to EPG.

④ "Reminder" function

- 1 Select the broadcasting emitting the program which you want to remember.
- 2 Press the **BLUE** key on the remote control.
- 3 With **▲/▼/◀/▶** select Mode, Hour, Minute, Day and Month which you want the program to be remembered. Press **OK**.

⑤ "Reminder list" function

- 1 Press the **YELLOW** key to visualize all programmed reminders.
- 2 Press **▲/▼/◀/▶** to select a reminder and then press the **RED** key to delete it.



⑥ "Record" function



Press the **USB REC** key (Remote Control) to setup the recording parameters. See "Recording with timer" on page 34.

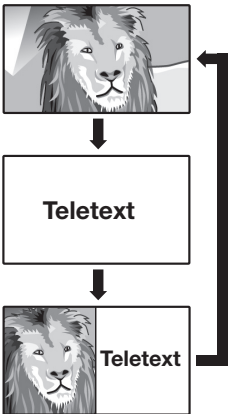
Teletext

What is Teletext?

Teletext broadcasts pages of information and entertainment to specially equipped TV. Your TV receives teletext signals broadcast by a TV network, and decodes them into graphical format for viewing. News, weather and sports information, stock exchange prices and programme previews are among the many services available.

Turning Teletext on/off








- 1
- Select a TV channel or external source providing a teletext programme.
- 2
- Press  to display the Teletext.
 - Many stations use the TOP operating system, while some use FLOF (e.g. CNN). Your TV supports both these systems. The pages are divided into topic groups and topics. After switching on the teletext, up to 1.000 pages are stored for fast access.
 - Each time you press , the screen switches as shown below.
 - If you select a programme with no teletext signal, "No Teletext available" displays.
 - The same message displays during other modes if no teletext signal is available.




NOTE

- Teletext will not work if the selected signal type is RGB.

Buttons for teletext operations

Buttons	Description
P^/V	Increase or decrease the page number.
Colour (R/G/Y/B)	Select a group or block of pages displayed in the coloured brackets at the bottom of the screen by pressing the corresponding Colour (R/G/Y/B) on the remote control unit.
0-9	Directly select any page from 100 to 899 by using the 0-9 numeric buttons.
 (Top/Bottom/Full)	Switch the teletext image to Top, Bottom or Full.
 (Reveal hidden Teletext)	Reveal or hide hidden information such as an answer to a quiz.
 (Freeze/Hold)	Stop updating teletext pages automatically or release the hold mode.
 (Subtitle for Teletext)	Display the subtitle or exit the subtitle screen. <ul style="list-style-type: none">Subtitles will not be displayed when the service does not contain subtitle information.
 (Subpage)	TXT mode: Reveal or hide subpages. <ul style="list-style-type: none"> button: Move to the previous subpage. button: Move to the following subpage.OK button: shows a menu with two user controls (size and index).<ul style="list-style-type: none">Yellow button: Pressing one time, upper half of the screen is shown. Pressing a second time, the bottom half of the screen is shown. Pressing a third time, page returns to normal size.Blue button: shows the index page. When OK button is pressed while the menu is on the screen, it disappears. Note that with this menu on the screen the linked pages cannot be selected. TV mode: Display the time.

Using the MHEG-5 application (UK only)

Some services bring you programmes with the MHEG application encoded, letting you experience DTV/ CADTV interactively. When provided, the MHEG-5 application will start when you press .

NOTE

- MHEG may not be displayed in 3D mode.

Connecting external devices

Before connecting ...

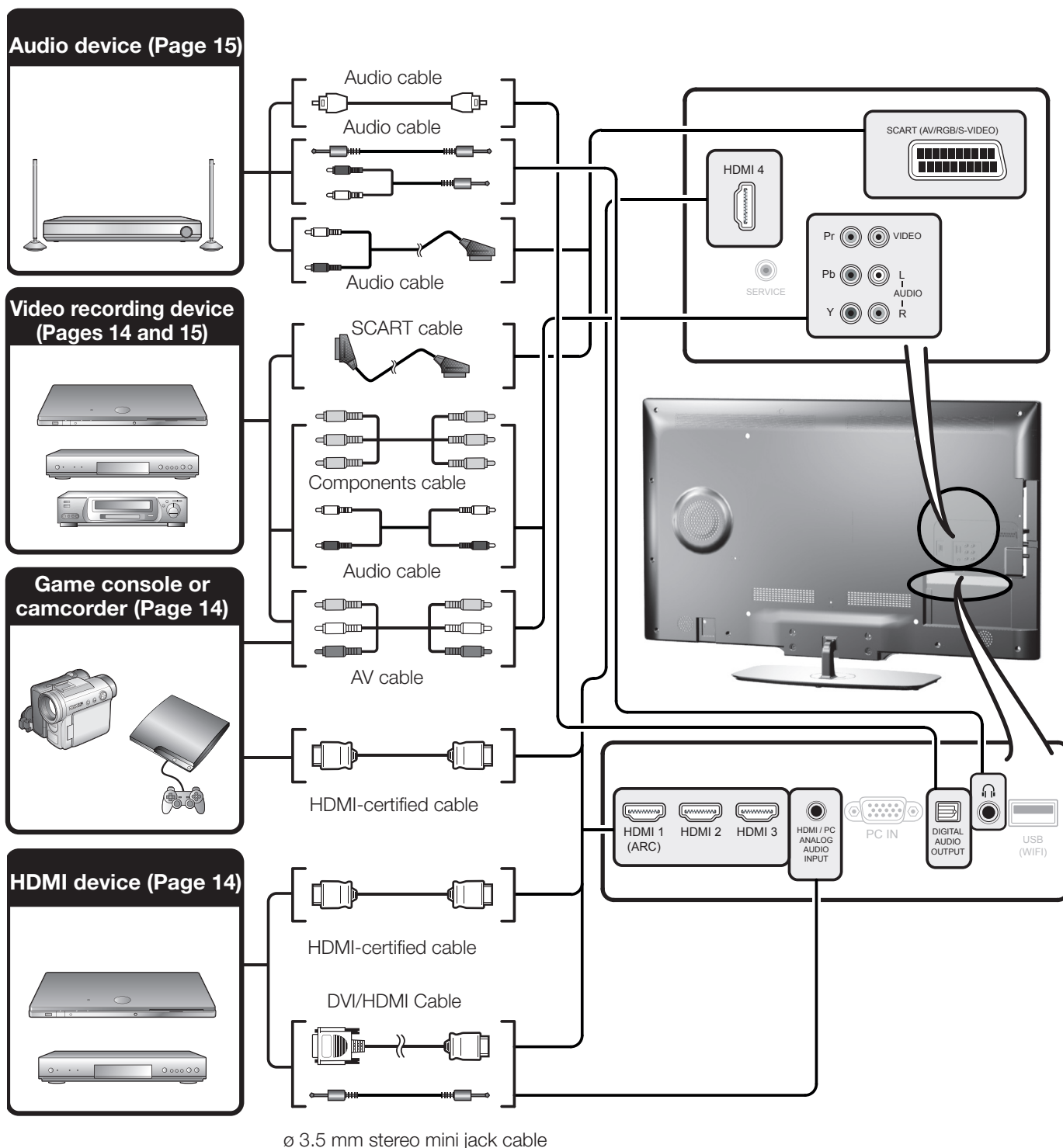
- Be sure to turn off the TV and any devices before making any connections.
- Firmly connect a cable to a terminal or terminals.
- Carefully read the operation manual of each external device for possible connection types. This also helps you get the best possible audiovisual quality to maximise the potential of the TV and the connected device.

Introduction to connections

The TV is equipped with the terminals as shown below. Find the cable corresponding the TV's terminal and connect the device.

NOTE

- The cables illustrated in pages 13, 14 and 15 are commercially available items.



Connecting external devices

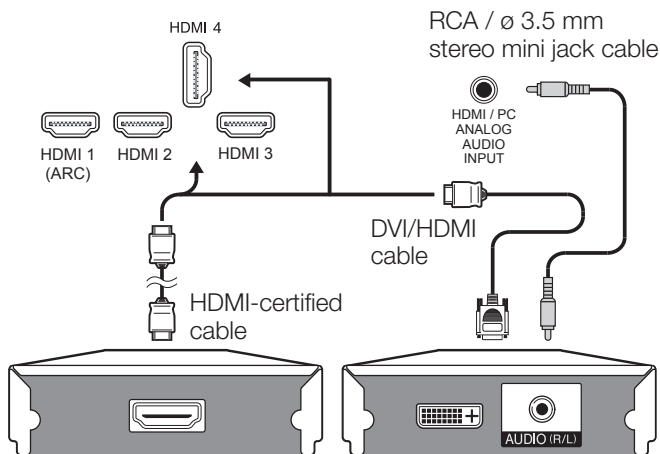


HDMI connection

Example of connectable devices

- DVD player/recorder • Blu-ray player/recorder
- Game console

The HDMI connections permit digital video and audio transmission via a connection cable from a player/recorder. The digital picture and sound data are transmitted without data compression and therefore lose none of their quality. Analogue/digital conversion is no longer necessary in the connected devices, which also would result in quality losses.



DVI/HDMI conversion

Using a cable DVI/HDMI, the digital signals of a DVD video, can be also reproduced through a compatible HDMI connection. The sound should be supplied additionally.

- On connecting a DVI/HDMI cable to the HDMI terminal, may be the picture does not become visualized clearly.
- Both HDMI and DVI use the same method of HDCP protection against copy.
- For connecting a DVI cable, a commercially available adaptor (not supplied) is necessary.

NOTE

- Depending on the type of HDMI cable used, it may appear a video noise. Be sure to use a certified HDMI cable.
- On reproducing HDMI picture, the best format is automatically detected and adjusted for the picture.

Compatible video signal

576i, 576p, 480i, 480p, 1080i, 720p, 1080p

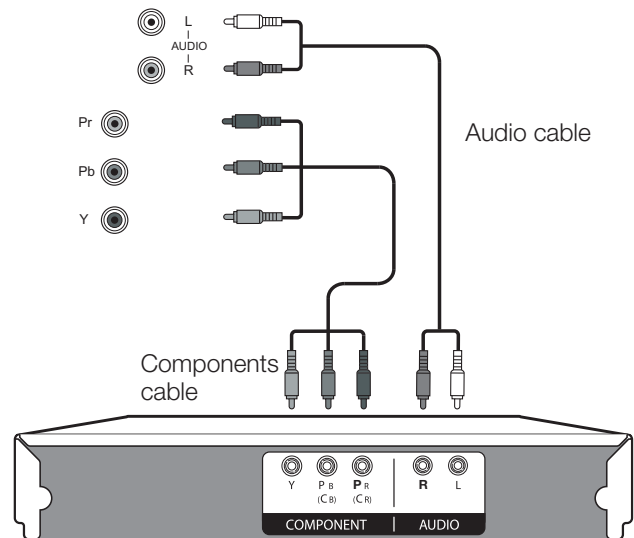


Component connection

Example of connectable devices

- VCR • DVD player/recorder
- Blu-ray player/recorder

You will enjoy accurate colour reproduction and high quality images through the INPUT COMPONENTS / AV terminal when connecting a DVD player/recorder or other device.

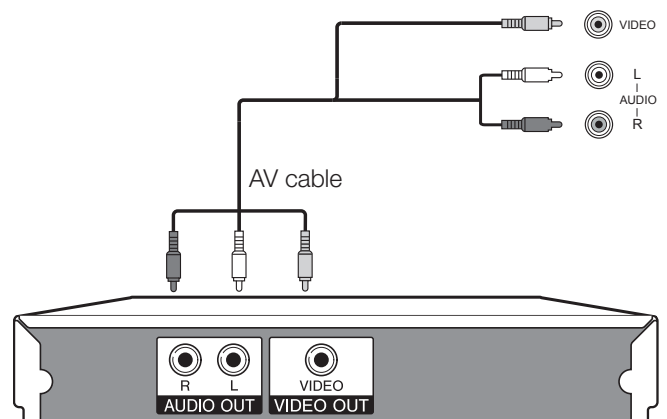


VIDEO connection

Example of connectable devices

- VCR • DVD player/recorder
- Blu-ray player/recorder
- Game console • Camcorder

You can use the COMPONENTS/AV terminal when connecting to a game console, camcorder, a DVD player / recorder or other device.



Connecting external devices

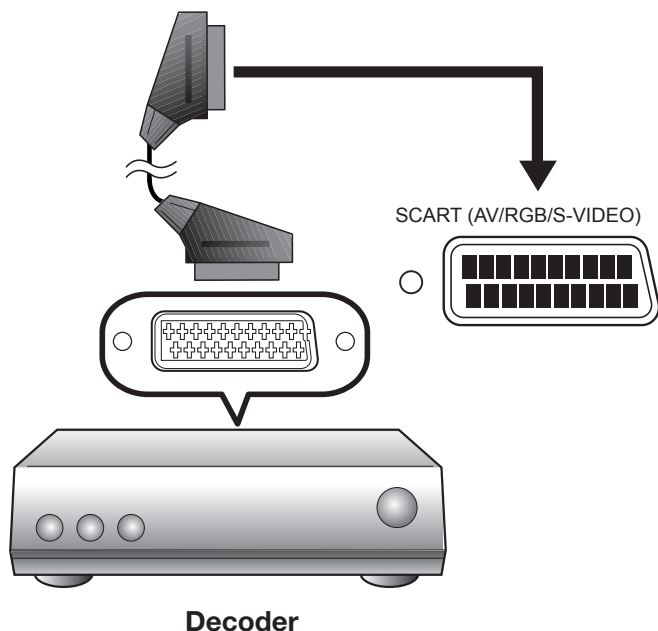


SCART connection

Example of connectable devices

- VCR • Decoder
- DVD player/recorder

SCART cable



NOTE

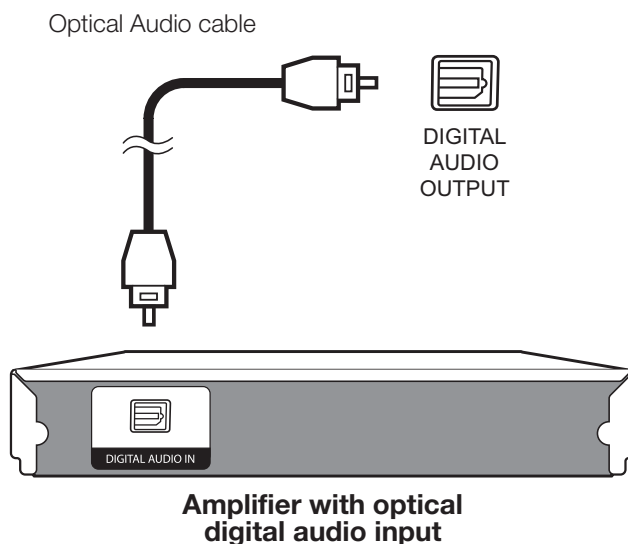
- In cases when the decoder needs to receive a signal from the TV, make sure to select the appropriate input terminal to which the decoder is connected in "Source List" (Page 10).

Speaker/amplifier connector

Example of connectable devices

- Connecting an amplifier with digital audio input

Connect an amplifier with external speakers as shown below.



• After connecting

Digital audio output setting

After connecting an amplifier with optical digital audio input as shown, you should set an audio output format compatible with the programme you are watching or the device connected.

Go to "MENU" > "Sound" > "SPDIF Mode" > select "PCM" or "Dolby Digital".

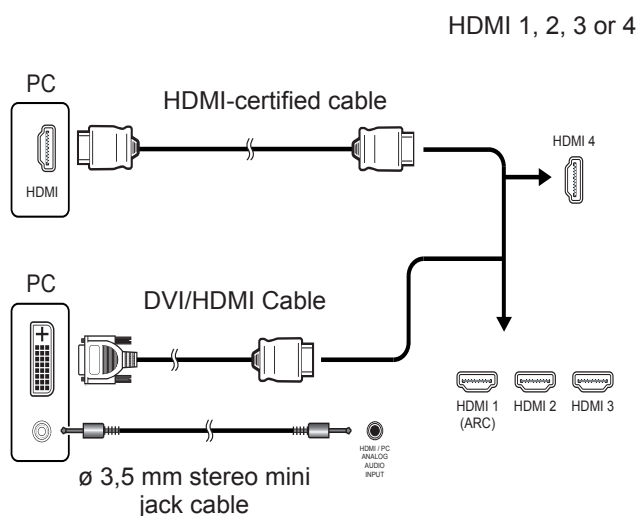
NOTE

- When you set this to "Dolby Digital", and you receive the Dolby Digital or Dolby Digital Plus audio formats, Dolby Digital audio is output. Otherwise, PCM audio is output. When you set this to "PCM", PCM audio is output no matter what audio formats you receive.

Connecting a PC

PC connection

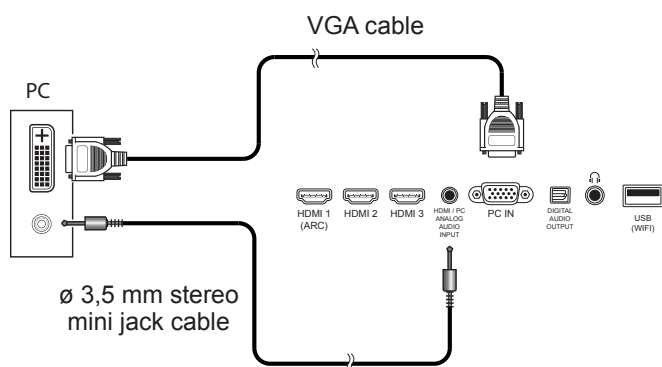
HDMI (DVI) Connection



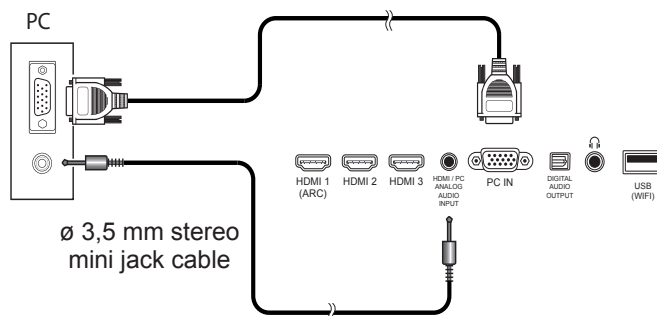
After connection

- If after connecting a PC to the TV through a HDMI cable, the audio does not run, connect a mini stereo connector of \varnothing 3.5mm between TV and PC as indicated in the previous drawing.
- When a PC is connected to the TV with a DVI cable, it will be necessary to connect a mini stereo connector of \varnothing 3.5mm of the TV to PC as indicated in the previous drawing.

Analogue Connection



DVI/VGA Conversion cable



NOTE

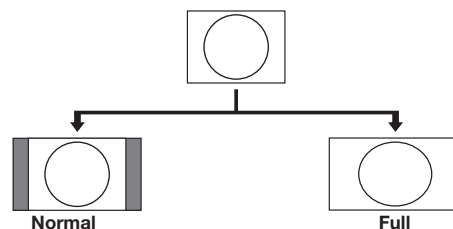
- When using the PC-IN terminal is necessary to connect a audio cable.

Selecting the picture size

You can select the picture size.

- 1 Press **MENU** on the remote control, then press **OK**.
- 2 Press **▼** key to select **"Advanced Video"**, then press **OK**.
- 3 Press **▼** key to select **"Aspect ratio"**, then press **OK**.
- 4 Press **▼** key to select the desired item, then press **OK**.

Example



Item	
Auto	Picture size is adjusted automatically
Full	An image fully fills the screen
Dot by Dot	Displays an image with the same number of pixels on the screen






NOTE

- You can also select an item by pressing **⏏** on the remote control unit.
- Connect the PC before making adjustments.
- Selectable picture size may vary with input signal type.
- The **"Aspect ratio"** adjustment is only available for analogue signals through the "PC IN" terminal.

Connecting a PC

Adjusting the PC image automatically

This function enables the screen to be automatically adjusted to its best possible condition when the analogue terminals of the TV and PC are connected with a commercially available DVI/VGA conversion cable, etc.





1. Press  to select **PC-RGB** from **Source List**, and then press **OK**.
2. Press **MENU** key.
3. Press  key to select **"Settings"** and press **OK**.
4. Press  key to select **"Input Settings"** and press **OK**.
5. Press  key to select **"PC Settings"** and press **OK**.
6. Press  key to select **"Auto Adjustment"** and press **OK**.

NOTE





- When connect a PC and select **PC-RGB** source, the **"Auto adjustment"** is executed automatically.
- **"Auto adjustment"** may fail if the PC image has low resolution, has unclear (black) edges, or is moved while executing **"Auto adjustment"**.
- Be sure to connect the PC to the TV and switch it on before starting **"Auto adjustment"**.
- **"Auto adjustment"** can be executed only when inputting analogue signals through the "PC IN" terminal.

Adjusting the PC image manually

Ordinarily you can easily adjust the picture as necessary to change image position using **"Auto Adjustment"**. In some cases, however, manual adjustment is needed to optimise the image.

1. Press  to select **PC-RGB** from **Source List**, and then press **OK**.
2. Press **MENU** key.
3. Press  key to select **"Settings"** and press **OK**.
4. Press  key to select **"Input Settings"** and press **OK**.
5. Press  key to select **"PC Settings"** and press **OK**.

Settings•PC Settings	
Horizontal pos.	50
Vertical pos.	50
Phase	50
Clock	50
Auto Adjustment	▶
Reset Settings	▶

6. Press / to select the specific adjustment item.
7. Press / to adjust the item to the desired position.

Item	
H-Pos.	Centres the image by moving it to the left or right.
V-Pos.	Centres the image by moving it up or down.
Phase	Adjusts when characters have low contrast or when the image flickers.
Clock	Adjusts when the image flickers with vertical stripes
Auto Adjustment	Adjusts automatically the image
Reset Settings	Return to the original image.

NOTE

- The **"PC Settings"** options in the **"Settings"** menu can be adjusted only when inputting analogue signals through the "PC IN" terminal.
- Depending of resolution, the vertical/horizontal manual range can be different.

PC compatibility chart

Resolution		Horizontal Frequency	Vertical Frequency
VGA	640 × 480	31,5 kHz	60 Hz
VGA	720 × 400	31,47 kHz	70 Hz
SVGA	800 × 600	37,9 kHz	60 Hz
XGA	1.024 × 768	48,4 kHz	60 Hz
WXGA	1.360 × 768	47,7 kHz	60 Hz
SXGA	1.280 × 1.024	64,0 kHz	60 Hz
SXGA+	1.400 × 1.050	65,3 kHz	60 Hz
UXGA	1.600 × 1.200	75,0 kHz	60 Hz
1080p	1.920 × 1.080	67,5 kHz	60 Hz

VGA, SVGA, XGA, WXGA, SXGA, SXGA+ and UXGA are registered trademarks of International Business Machines Corporation.

NOTE

- This TV has only limited PC compatibility, correct operation can only be guaranteed if the video card conforms exactly to the VESA 60 Hz standard. Any variations from this standard may result in picture distortions.

Menu operation

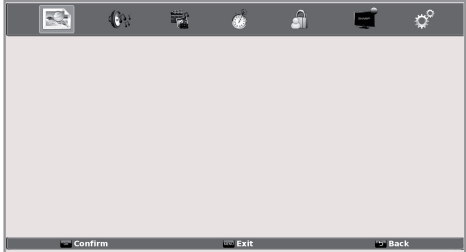
What is the menu?


- You need to call up the OSD to perform settings for the TV. The OSD for the settings is called "MENU".
- The "MENU" enables various settings and adjustments.
- The "MENU" can be operated with the remote control unit and with the TV panel control keys.

Common operations

1 Display the menu screen

Press **MENU** and the "MENU" screen displays.



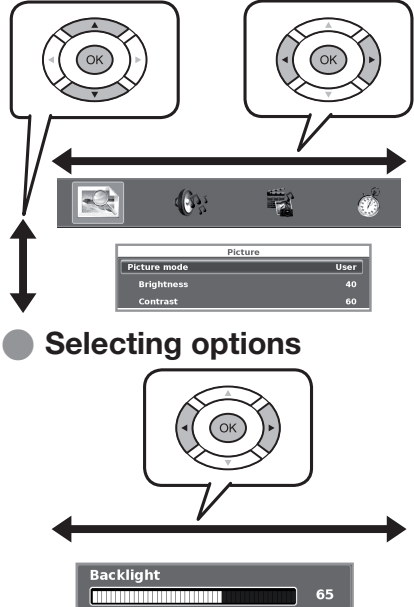


2 Select an item

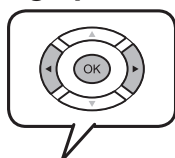
Press **▲/▼/◀/▶** to select/adjust the desired menu, and adjust the item to the desired level, and then press **OK**.

Press **MENU** to return to the previous "MENU" page.

Selecting in the menu



Selecting options



3 Exit the menu screen

The operation will exit the "MENU" screen if you press **END** before it is completed.

NOTE

- "MENU" options differ in the selected input modes, but the operating procedures are the same.
- The screens in the operation manual are for explanation purposes (some are enlarged, others cropped) and may vary slightly from the actual screens.
- Items in darker grey cannot be selected.

Operation without a remote control unit (with the TV panel control keys)

This function is useful when there is no remote control unit within your reach.

- 1 Press **MENU** to display initial MENU screen, or to return to previous MENU screen.
- 2 Press **CH▲/▼** instead of **▲/▼** or **◀/▶** to select the item.
- 3 Press **→** to open a new MENU level or accept the setting

NOTE

- The "MENU" screen will disappear if left unattended for several seconds.

About the Guide Display

The Guide Display at the top of the screen shows the menu bar.



- | | | |
|---------------------|-------------------|-------------------|
| 1 Picture | 4 Time | 7 Settings |
| 2 Audio | 5 Lock | |
| 3 Multimedia | 6 Channels | |

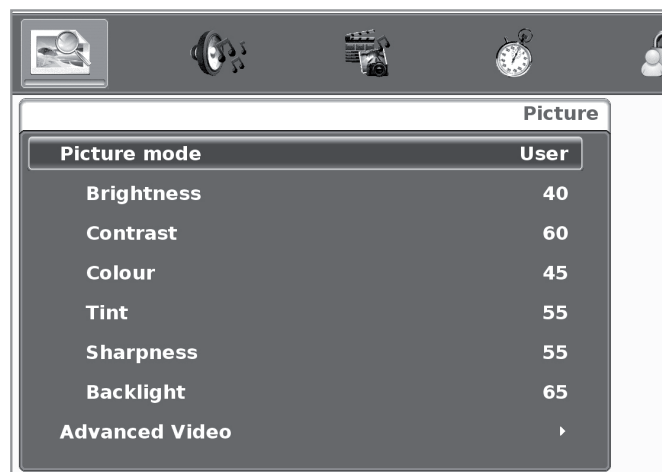
The Guide Display at the bottom of the screen shows the operations with the OSD.



The bar above is an operational guide for the remote control unit. The bar will change in accordance with each menu setting screen.

Basic adjustment

Picture settings



Picture adjustments

When the **Picture Mode** is set to “**User**”, the picture can be adjusted according to your preferences. See the following setting table.

Adjustments options

Selected setting	◀ Button	▶ Button
Brightness	Brightness goes down	Brightness goes up
Contrast	Contrast goes down	Contrast goes up
Colour	Colour intensity goes down	Colour intensity goes up
Tint	Skin tones become purplish	Skin tones become greenish
Sharpness	Soften details	Emphasize details
Backlight	The screen dims	The screen brightens
Advanced Video	This TV provides various functions for optimizing the picture quality. See the following table.	

	Selected setting	◀ Button ▶ Button
Advanced Video	Aspect Ratio	Changes between different picture sizes
	Colour Temperature	Adjusts the colour temperature to give the best white image: cool, normal, warm.
	Noise Reduction*	Improves picture quality (choose among different options)
	Dynamic backlight	Adjusts screen brightness based on image content.
	Film mode	Automatically detects a film-based source and recreates each still frame for high-definition picture quality.
	Fine Motion Advanced	Reducing motion blur.

* This function may be not available in some types of input signal.

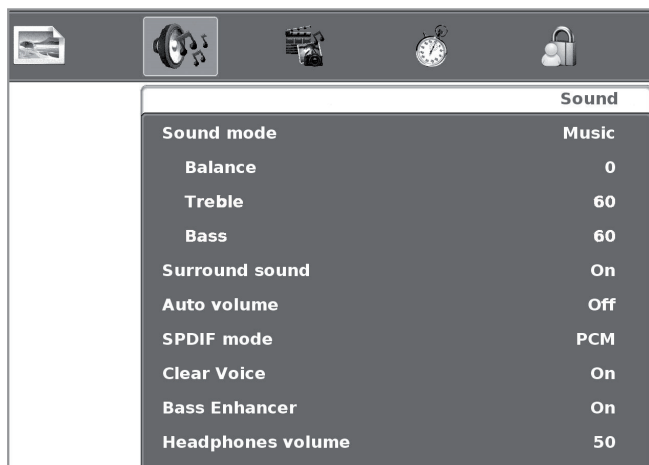
AV MODE

“**AV MODE**” gives you several viewing options to choose from to best match the system environment, which can vary due to factors like room-brightness, type of programme watched or the type of image input from external equipment.

- 1 Press **AV MODE**.
- 2 Every time **AV MODE** is pressed the TV changes the mode as follows:

STANDARD → SOFT → ECO → CINEMA → USER → DYNAMIC ↺

Audio settings



Sound

Sound adjustments

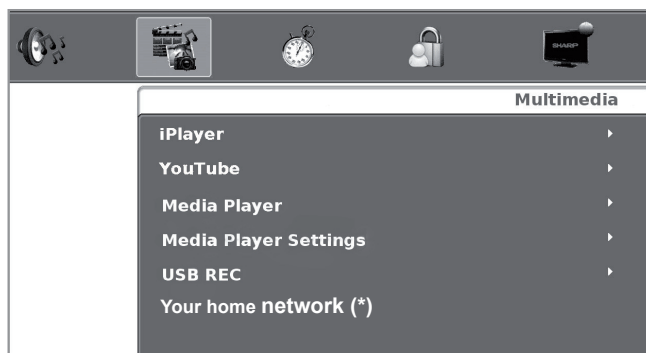
When the **Sound Mode** is set to "User", the sound can be adjusted according to your preferences. See the following setting table.

Adjustments options

Selected setting	◀ Button	▶ Button
Balance	Increase audio from the left speaker	Increase audio from the right speaker
Treble	Reduce treble	Increase treble
Bass	Reduce bass	Increase bass
Surround Sound	Off	On
Auto Volume	Off	On
SPDIF Mode	(PCM) Activates digital audio output	Dolby Digital
Clear voice	Off	On
Bass Enhancer	Off	On

- **Sound Mode**
Select your desired setting. The available options are: STANDARD→MUSIC→MOVIE→SPORTS→USER↩
- **Surround Sound**
This function allows you to enjoy surround sound.
- **Auto Volume**
Reduces sudden volume changes, for example, during commercials or when switching from one channel to another.
- **SPDIF Mode**
Digital audio output.
- **Clear voice**
This function emphasises speech against background noise for greater clarity.
- **Bass Enhancer**
This function allows you to enjoy bass-enhancer.
- **Headphones Volume**
Headphones volume control.

Multimedia



(*) The name of your home network will appear here once detected.

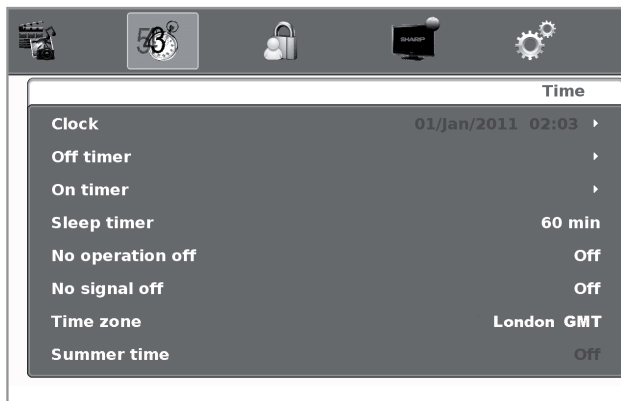
Multimedia

Multimedia menu

- **iPlayer** (Only LE731 for UK)
Internet television and radio service for the BBC.
 - **YouTube**
Access to YouTube services directly.
This option is available only when the TV is connected to Internet.
 - **Media Player**
Access to Multimedia Menu. (See page 27)
 - **Media Player Settings**
This TV allows play video on demand (DivX® VOD). You need to register the TV before playing the DivX® content.
This is the function to confirm your registration code.
 - **DivX® VOD Register**
To activate this option you need to register the code at www.divx.com/vod, download the VOD log file and reproduce it in TV.
 - **DivX® VOD Deregister**
Displays the deactivation code necessary to write off this TV at www.divx.com/vod.
 - **Video Preview**
Setting this option to On, allows you preview the video that you select in a little window in the screen.
 - **USB REC**
 - **USB REC Manual programming**
Allows you to schedule the program recorder.
 - **USB REC Programmed recording list**
Allows you to visualize all scheduled recordings.
 - **USB REC Recorded list**
Allows you to see the recorded program list.
 - **USB REC settings**
Allows to select disk, disk setup, speed test and disk space reserved for this function.
- For **USB REC** detailed operation see page 35.
- **Your home network**
Your home network will be available in the **Multimedia** Menu in case it is connected to the TV set through the Ethernet terminal or via Wi-Fi (Optional Accessory, see page 5).
See "**Connected TV**" for detailed operation (page 31).

Basic adjustment

Time settings



This adjustment allows you to set or to display the following functions: Clock, Off/On Timer and Sleep Timer.



● Clock

This function allows you to display the clock information (day / month / year / hour/ minute). The time and the date can't be modified in this option.

● Off timer

Allows you to set a time when the TV automatically enters in standby mode.

● On timer

Allows you to set the time when the TV must switch on.

● Sleep timer

Allows you to setup the automatic Switch Off for: 10min., 20min., 30min., 60min., 90min., 120min., 180min. and 240min.

NOTE

- Select "Off" to cancel the sleep timer.
- When the time has been set, countdown starts automatically.
- The last minute is displayed second to second.

● No operation off

Switches the TV off when no key is pressed for 3 hours.

● No signal off

When this function is activated the TV enters in standby mode automatically if there is no signal input during 10 minutes.

In PC mode, when there is no signal input, the TV goes into standby mode after 15 seconds.

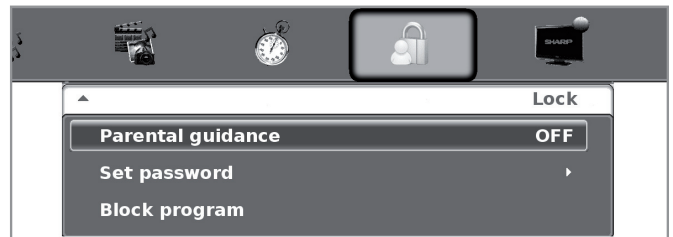
● Time zone

Allows you to setup the time zone.

● Summer time

Allows you to change automatically to summer time (auto, off, on.)

Lock settings



This function allows you to use a password to lock certain programs and adjustments.

The password is always needed to access to this menu (by default, the password is 3001.)

● Parental guidance

This function allows you to restrict DTV/CADTV/ SADTV (only LE732 model) programs depending on the age classification.

The information about classification is provided by the broadcasting station.

● Set password

Allows you to change the password. Press **OK**, enter the new password. To confirm, go out from **Lock** menu.

● Block program

The password is needed before locking one program.

1 Select the program or programs you want to lock and press **GREEN** button. A padlock appears next to the locked channel in the channel list.

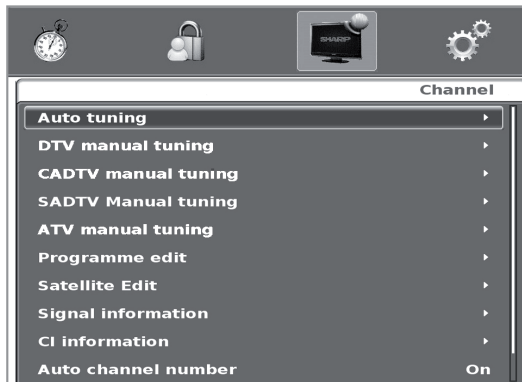
2 Press **End** to exit.

This option enters your selection in a locked channels list.

NOTE

- To prevent the channel search, when one program is locked, the channel menu is locked too.
- To view a locked channel, you must enter the password. When you select a locked channel a password prompt message pops up.
- You must repeat the previous steps to unlock one locked program.

Channel settings



Channel adjustments

Allows to reconfigure the channels after initial auto installation has been completed.

Install channels

● Auto tuning

This function allows you to select the country and automatically adjusts the channels for digital, cable, satellite (Only LE732 model series) or analogue individually.

● DTV manual tuning

Allows you to tune digital channels manually.

● CADTV manual tuning

Allows you to add new cable services manually. This setting appears after searching for cable broadcasts.

● SACTV manual tuning (Only LE732 model series)

Allows you to add new satellite services manually. This setting appears after searching for satellite broadcasts. See next page.

● ATV manual tuning

Allows you to tune in analogue channels manually.

● Programme edit

Allows you move channels, delete channels, skip channels and to set up a favourite channels list.

Select the channel you want to reorganize and press **◀/▶** to change between **Viewable**, **Skipped** (to ignore it) and **Favorite** (to add it to favorite list). Press the **RED** button to delete it, the **YELLOW** button to move it or **GREEN** button to rename it.

NOTE

- If you press **FAV** when you are not in any adjustment menu, the favourite channel list will appear.
- **Satellite edit** (Only LE732 model series)
Allows you to adjust the satellite properties.
- **Signal information**
Shows the signal power and quality.
- **CI information**
Allows to see the CA card information (Conditional Access Module): name, supplier and OSD.
- **Auto channel number**
Automatic channel sorting.
- **Additional search**
Use this menu to add new services automatically.

Searching for cable broadcasts

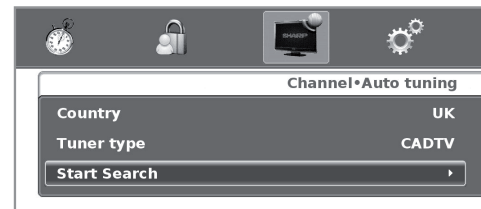
● CADTV Auto Tuning

Allows you to add cable services.

1 With **▲/▼/◀/▶** keys select **Channel**, then select **Auto Tuning** and press **OK**.

2 With **▲/▼/◀/▶** keys select **Country** and **Tuner type (CADTV)**.

3 Go to **Start Search** and press **OK**.



● CADTV Manual Tuning

After the **CADTV Auto tuning**, you may add new cable services manually.

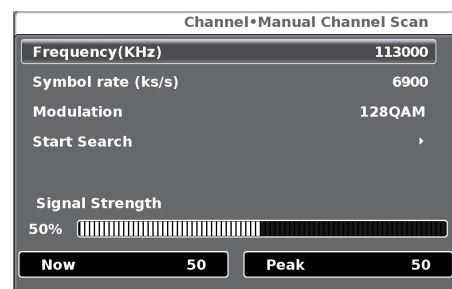
1 With **▲/▼/◀/▶** keys select **Channel** and **CADTV Manual tuning** and press **OK**.



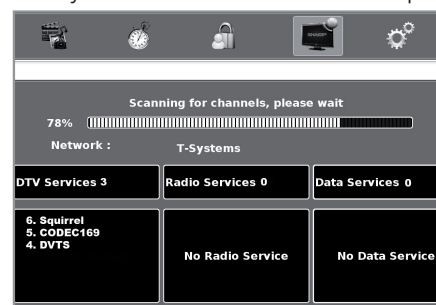
2 Select manually **Frequency** and **Symbol rate** by using numerical keys (Remote Control).

3 With **▲/▼** keys select **Modulation** and press **OK**.

4 Select the **Modulation** from the list, confirm by pressing **OK** and press **↵** to return.



5 With **▲/▼** keys select **Start Search** and press **OK**.



NOTE

- The value of **"Frequency"**, **"Symbol rate"** and **"Modulation"** should be set to the value specified by the cable provider.

Basic adjustment

Searching for satellite broadcasts (Only for LE732 model series)

● SADTV Auto tuning

Allows you to tune satellite services.

1 Press **MENU** on the remote control. With **◀/▶** keys select **Channel**, then select **Auto Tuning** and press **OK**.

2 With **▲/▼/◀/▶** keys select **Tuner type** → **SADTV**.

3 Go to **Start Search** and press **OK**.

The following screen will appear:



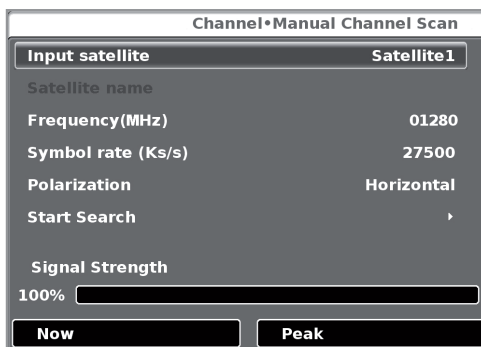
Choose the setup applicable to your satellite device and confirm your choice pressing **OK** button on the remote control.

The automatic search will start.

● SADTV manual Tuning

This option allows you add satellite services manually.

Press **MENU** on the remote control. With **▼** key select **SADTV manual Tuning** and press **OK**.



● Input Satellite

Choose the setting applicable to your satellite device and press **OK**.

● Frequency (MHz)

Introduce the transponder frequency in MHz.

● Symbol rate

Introduce the symbol rate.

● Polarization

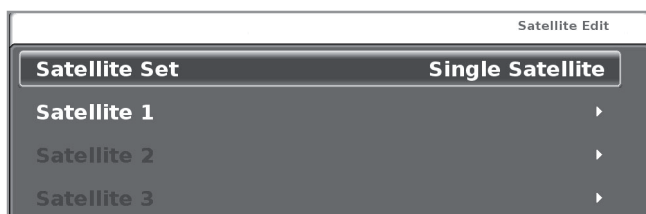
Allows to choose between horizontal or vertical polarization.

Select **Start Search** and press **OK** to start searching.

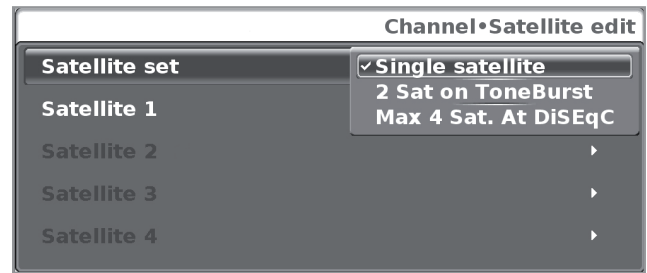
● Satellite edit

This option allows you to adjust manually the satellite properties.

Press **▼** to select **"Satellite Edit"** and then press **OK**.



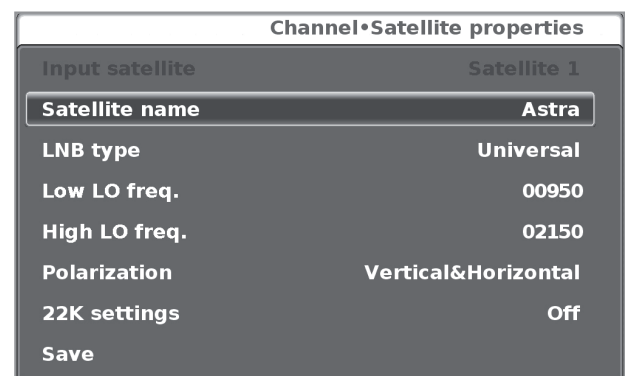
Select **Satellite Set**. You can choose between the following options:



Consult your dealers before using a method other than **Single Satellite**.

1 Select **Single Satellite** and then press **OK**.

2 Press **▼** to select **"Satellite 1"** and press **OK**.



3 Select **Satellite Name** and press **OK**. Enter the satellite name using software keyboard.

4 Select **LNB Type** and choose between **Universal** or **User**. If you choose **Universal** the other settings remains disabled (grey). If you choose **"User"** the following settings will be enabled:

● Low LO freq.

Allows you to change default low frequency.

● High LO freq.

Allows you to change default high frequency.

● Polarization

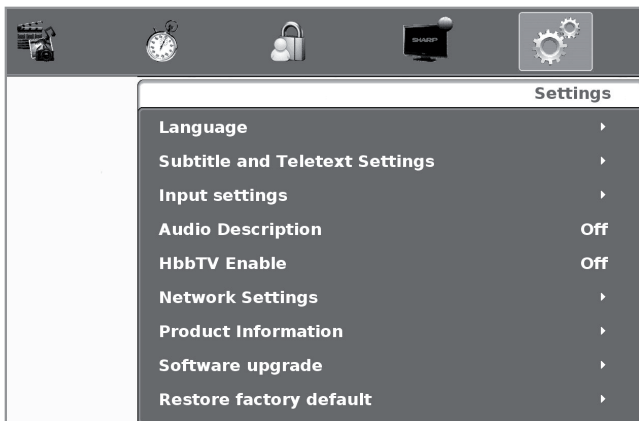
Depending on the broadcaster characteristics choose between **Vertical&Horizontal** (search for in both polarities), **Vertical** or **Horizontal** (search for in one polarity) or **LNB OFF** (LNB power off).

● 22K settings

Select **ON** to add the high band to the search automatically process by applying 22KHz tone.

Press **▼** to select **Save** and then press **OK** to save the settings.

Settings



Settings

Settings menu

● Language

Allows you to select the screens language and the audio language.

● OSD Language

Press ▲/▼/◀/▶ to select the "Menu" language, then press **OK**.

● Audio Languages

Press ▲/▼ to select the audio language.



● Subtitle and Teletext Settings

Allows you to activate/deactivate the subtitles, select the subtitles language and the subtitle teletext language. Also allows select the subtitles mode choosing between: **Normal** or **Hard of Hearing**.

● Subtitle Mode

Normal / Hard of Hearing.

● Subtitle Language

Primary / Secondary.

● Teletext charset (Language)

Allows you choice the character set for teletext language.

NOTE

- Subtitles will not be displayed when the service does not contain subtitle information.

● Input Settings

Allows you to adjust individual settings:

● Input Labels

Allows associate each input source with a description.

● HDMI CEC (Consumer Electronics Control)

Activate / deactivate **HDMI CEC**. (See page 29)

● PC Settings

Allows to adjust the picture when a PC is connected. (See page 16)

● Audio description

This function allows you to enable output of audio of audio description if the TV receives a signal including audio description.

● HbbTV Enable

This setting allows you to access to new services from entertainment providers such as broadcasters, online providers, including catch-up TV, video on demand (VoD), interactive advertising, personalisation, voting, games and social networking. (See page 33).

NOTE:

- When the "Audio description" is set to "On", the audio description sound is superimposed on the main audio when you select a broadcast compatible with audio description.
- This function is available only for DTV broadcasts. This **"Audio description"** menu is not displayed for the ATV or the external inputs.
- The audio description sound is superimposed on the main audio only when the sound is output on the speaker sound output, headphone sound output and sound for audio out output. The sound is not output on the S/PDIF sound output and the SCART sound output.

● Network Settings

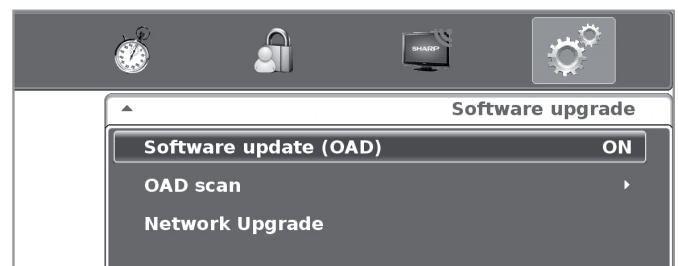
Internet setup. (See page 31).

● Product information

Shows hardware and software version.

● Software upgrade

This option allows you to have the TV software version always updated.



● Software Update (OAD)

Setting to ON this option the TV automatically determines whether a new software version is available (through digital broadcasts) when the TV is in standby mode.

● OAD scan

Checks immediately if there is new software.

● Network upgrade

This function allows you to update to the latest software via network.

Follow the on-screen instruction.

NOTE:

- A broadband connection and Network setup are required to update the software using the internet.

Software update via USB

- 1 Add the binary file to USB memory root.
- 2 Insert the memory in any USB side TV set socket.
- 3 The next message appear:



Basic adjustment

- 4 Press **◀** to select **Yes** and press **OK**. The software update will start.
 - The updated percentage appears.
 - 5 When software update finishes, remove the USB memory and press **OK** to reset the TV.
 - 6 Return to **Settings < Product information** menu to check that the version has been updated successfully.
- **Restore factory default**
Recover the configuration that the TV had when it left the factory.

Channel list

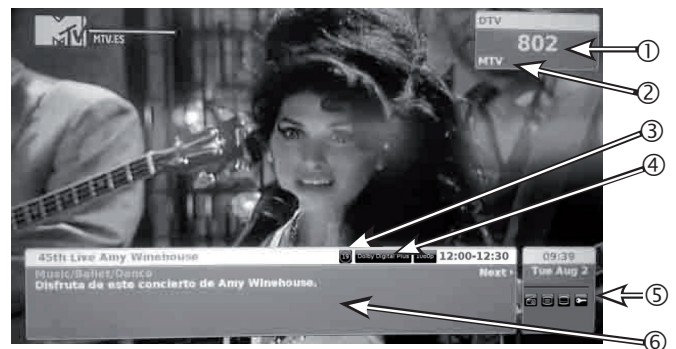
Selecting the channel you want to watch

- 1 Press **OK** and the list of tuned channels will be displayed.
- 2 Use **▲/▼** to select the channel you want to watch and press **OK**.



Channel information display (DTV/CADTV only)

You can display the channel information that you are watching at this moment by pressing **(i+)** on the remote control unit.



Information that appears on the screen:

- ① **Program number**
- ② **Program name**
- ③ **Age classification**
- ④ **Audio**
- ⑤ **Available Services: Radio / Teletext / Subtitles / Encrypted**
- ⑥ **Information about the program which is being broadcast**

CLEARING THE PIN

If you lose or forget your PIN, you can clear the PIN following these steps:


- 1 Go to «MENU»→«LOCK».
- 2 Enter “3001” to cancel out the current PIN.
The current PIN is reset to “3001”.

Useful viewing functions

Selecting the picture format

Selecting the picture format manually

You can select the picture format. The selected picture format varies depending on the type of signal received.

- 1 Press  on the remote control unit to change between different kinds of pictures.

Sizes for SD Signal (Standard Definition)

Normal 4:3 : Keeps the original aspect ratio in a full screen display.

Zoom 14:9 : For 14:9 letterbox pictures. A thin side bar appears on each side, and you may also see bars on the top and bottom with some programs.

Panorama: In this mode, picture is stretched toward each side of the screen. The picture may appear similar to "Full" depending on broadcast signals.

Full: For 16:9 squeeze pictures.

Cinema 16:9: For 16:9 letterbox pictures. Bars may appear on the top and bottom with some programs.

Cinema 14:9: For 14:9 letterbox pictures. Bars may appear on the top and bottom with some programs.

Auto: The TV selects the picture size automatically.

Sizes for HD Signal (High Definition) HDMI

Full: Overscan image. Cuts out all sides of the picture.

Underscan: Displays a high definition picture adjusted perfectly. Picture noise may appear on the sides of picture with some programs.

Underscan mode for 1080(i/p) video signals is same as Dot by Dot mode.

Auto: this mode allows the TV to change between different picture sizes automatically.

NOTE

- Some items do not appear depending on the type of received signal.

Setting when using external devices

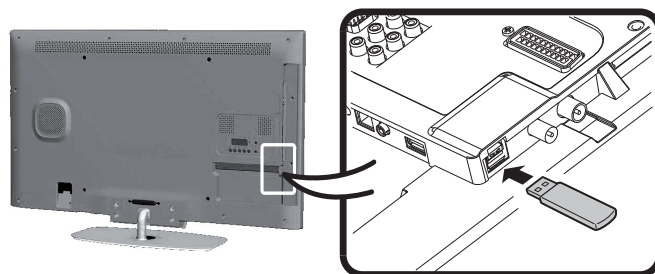
Source list

For selecting the input type of external equipment.

- If no (colour) image is displayed, try changing to another signal type.
- Check the operations manual of the external equipment for the signal type.

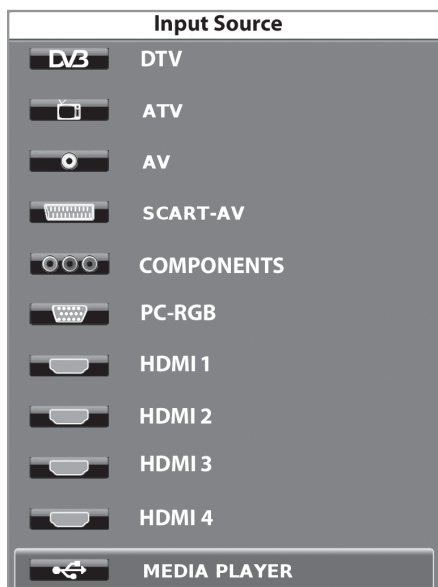
Connecting a USB device (Media Player)

Connect an USB device to the TV as shown below.



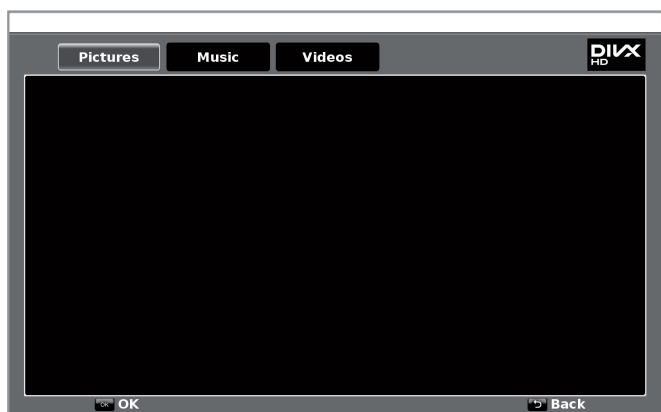
- Depending on the USB device, the TV may not be able to recognise the contained data.
- Use only alphanumeric characters for naming files.
- File names over 80 characters (may vary depending on character set) may not be displayed.
- Do not disconnect a USB device or memory card from the TV while transferring files, using the slide show function, when a screen is switching to another or before you exit "MEDIA PLAYER" from the "Source List" menu.
- Compatibility with USB hard disc connection.
- Do not connect and disconnect a USB device from the TV repeatedly.

Useful viewing functions



MEDIA PLAYER function

After selecting Media Player, the TV loads USB device files, and shows the following screen:



- 1 Pressing ◀/▶ buttons you can change between different modes: **Pictures**, **Music** or **Videos**. Press **OK** to select the option you want to reproduce.
- 2 Press ▲/▼/◀/▶ to select the folder where you want to search the files and then press **OK**.

Picture mode

You can reproduce photos with JPEG (*.JPE, *.JPG), and PNG format on your TV.
Several kinds of reproduction are possible.

- 1 Select **Picture** mode and press **OK**.
 - 2 Select the file you want to display on full screen with ▲/▼ / ◀/▶ buttons and press **OK** to start the viewing.
- You can go to the previous/next page pressing P▲/▼ button.

Viewing pictures on full screen

Buttons for full screen display operation

Buttons	Description
▲/▼ Cursor	Go to the previous/next photo in the same directory.
◀ button	Go back to the previous screen.
Blue button	Zoom: ▲/▼/◀/▶ allow to move through the pictures when zoom is activated.
Yellow button	Rotates 90° the photo on screen.
Red button	Slide show.

Music mode

Reproduces MP3 music files.

- 1 Select **Music** mode and press **OK**.
 - 2 Select the files you want to reproduce with ▲/▼ / ◀/▶ buttons and press **OK** to start the reproduction.
 - 3 Press **OK** to stop the reproduction of MP3 files and press **END** to exit the **Music** mode.
- You can stop/restart the reproduction pressing **OK**.

Buttons for music reproduction

Buttons	Description
▲/▼ Cursor	Go to the previous/next track in the same directory.
◀/▶ Cursor	Backward / Fast forward (on reproduction mode)
END button	Go back to the previous screen.
RED button	(x1) Reproduce the selected file indefinitely. (x2) Reproduce all the files on the folder indefinitely.
OK button	Play/Pause reproduction.

Useful viewing functions

Video mode

Reproduces films and videos.

- 1 Select **Video** mode and press **OK**.
- 2 Select the files you want to reproduce with **▲/▼/◀/▶** buttons and press **OK** to start the reproduction.
- 3 Press **OK** to stop / restart the reproduction.
- 4 Press **END** to exit the **Video** mode.

Buttons for video reproduction mode

Buttons	Description
▲/▼ Cursor	Go to the previous/next chapter.
◀/▶ Cursor	Backward / Fast forward
END button	Go back to the previous screen.
RED button	Allows you to repeat a fragment of a film indefinitely. The first keystroke defines initial point, the second keystroke defines final point. The third keystroke restarts the normal reproduction.
BLUE button	Allows you to backward or forward until a point in the movie. Introduce "hh:mm:ss", select "Seek" and press OK .
OK button	Play / Pause the reproduction.
MENU button	Shows the menu to adjust the video image during reproduction.
⊕ button	Performs ZOOM operation in films and videos.

USB / HOME MEDIA device compatibility

USB 2.0 device	USB Memory, USB card reader, USB HDD (Mass Storage class)
File system	USB REC: NTFS
	USB Media Player: FAT / FAT32 / NTFS
Home Media (DLNA)	DLNA 1.5 DMP (Digital Media Player certified)
Photo file format	JPEG, PNG
Music file format	Mpeg 1 (Layer 1 & L2), MP3 Sampling frequency: 8Khz, 11.025 Khz, 12Khz, 16Khz, 22.050Khz, 32Khz, 44.1 Khz, 48 Khz
	HEACC, AAC (MP4), WAV (PCM), WMA, AC3, EAC3. Sampling frequency: 32Khz, 44.1 Khz, 48 Khz
Multimedia Container	TS (Transport Stream), MOV, MP4, MKV, MPG (MPEG2 Program Stream), WMV, ASF, AVI, DivX, RM, RMVB, FLV, VOB
Video file format	MPEG1, MPEG2, MPEG4, DivX, XVID, AVC/H.264, VC-1, AVS, Divx311 (SD Only), RealVideo

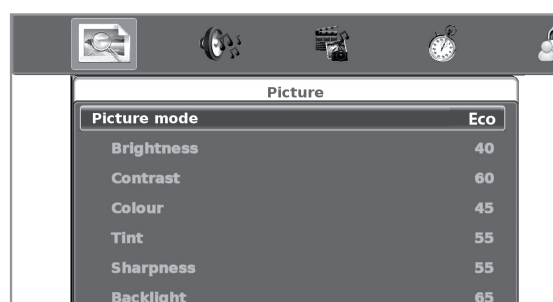
NOTE

- Progressive format jpeg files are not supported.
- Music files in USB 1.1 devices may not be played properly.
- Operation using USB hubs is not guaranteed.
- The external hard disc with capacity exceeding 1TB cannot be detected correctly.
- Cables used to prolong the USB device must be certified as USB 2.0.
- In USB devices, video files may not be played properly if speed is not enough.
- Play non-standard encoded files is not guaranteed.
- The file extension does not uniquely specify a file's contents. It's very common for Internet files to have a mismatch between the file extension and its contents; for this reason some files could not be played in this TV set.

Power save settings

This function enables you to automatically reduce the backlight brightness in order to decrease the power consumption and increase the backlight life span.

In menu **Picture** → **Picture Mode** select the **ECO** setting.



HDMI devices

Controlling HDMI devices using HDMI CEC

● What is HDMI CEC?

Using the HDMI CEC protocol, you can interactively operate compatible system devices (AV amplifier, DVD player/recorder, Blu-ray player/recorder) using a single remote control unit.

NOTE

- HDMI CEC does not work while using **USB REC** functions.

● What you can do with HDMI CEC

● One touch recording (DTV/SAT only)

You do not have to search for the remote control unit of your recording device. Press the **REC** ● or **REC STOP** ■ buttons to start/stop recording what you see on the recorder.

● One touch play

When the TV is in standby mode, it will automatically turn on and play back the image from the HDMI source.

● Single remote control operation

HDMI CEC automatically recognises connected HDMI devices and you can control the TV and the devices as if using an universal remote control unit.

● Operating title list of external devices

In addition to displaying the TV's own timer list (Page 35), you can also call up the external player's top menu or player's / recorder's title list provided that the devices support HDMI CEC.

● Multiple control of HDMI devices

You can select which HDMI device to operate using the "Device List" menu.

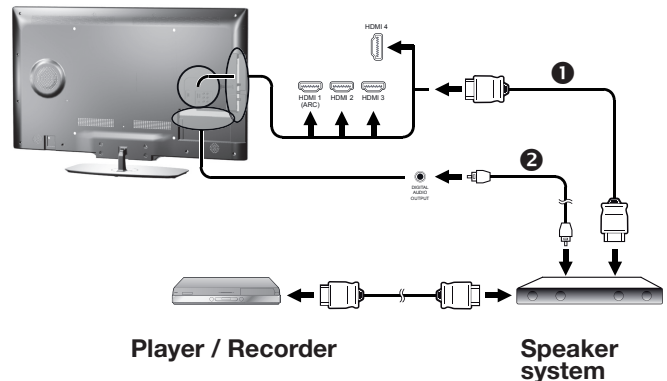
NOTE

- When you use HDMI CEC, make sure to use a certified HDMI cable.
- Point the remote control unit toward the TV, not to the connected HDMI device.
- Video noise may occur depending on the type of HDMI cable used. Make sure to use a certified HDMI cable.
- Up to three HDMI recording devices, one AV amplifier and three players can be connected using this system.
- These operations affect the HDMI device selected as the current external source. If the device does not operate, turn on the device and select the appropriate external source using →.
- When you insert/remove HDMI cables or change connections, turn on all connected HDMI devices before turning on the TV. Confirm that picture and audio are correctly displayed/output by selecting "HDMI 1", "HDMI 2", "HDMI 3" or "HDMI 4" from the "INPUT" menu.

HDMI CEC connection

First connect the speaker system or a player/recorder that supports the HDMI CEC protocol.

Connecting a player/recorder via the speaker system



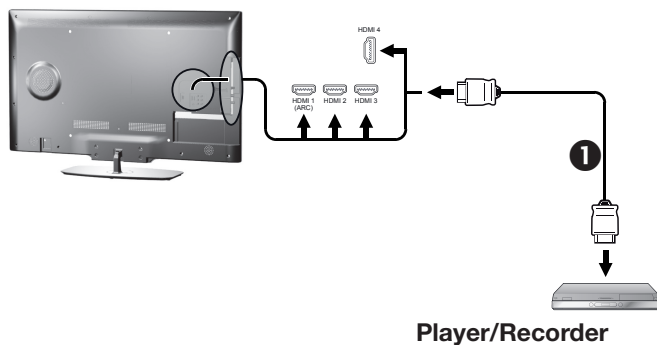
- ① HDMI-certified cable (commercially available)

- ② Optical audio cable (commercially available)

NOTE

- Refer to the operation manual of the device to be connected for further details.
- After unplugging connection cables or changing the connection pattern, turn on the power of the TV after all relevant devices power have been turned on. Change the external input source by pressing →, select the appropriate external source and verify the audiovisual output.
- The cables illustrated in the following explanation are commercially available items.

Connecting a player/recorder only



- ① HDMI-certified cable (commercially available)

HDMI CEC (Consumer Electronics Control) menu

Basic operation

Go to "Menu" > "Settings" > "Input Settings" > "HDMI CEC" and select the menu you want to set.

HDMI CEC control

Set to "On" to enable HDMI CEC functions.

Auto TV Power On

If this is activated, the one touch play function is enabled. While the TV is in standby mode, it automatically turns on and plays back the image from the HDMI source.

NOTE

- The factory default for this item is "Off".

Auto Link Power Off

If this function is set to "On", is possible to power off all HDMI devices connected in a daisy chain.

Speaker Output (Audio Return Channel)

If this function is set to "On", the TV can send audio data for video content shown on the TV to a connected audio device to HDMI 1 with just one ARC-compatible cable (HDMI 1.4 or upper). Using this function eliminates the need to use a separate digital or analogue audio cable.

NOTE

- ARC is only available in HDMI 1 terminal.

Connection for using "Speaker Output"

You can choose to listen to the TV sound only from the speaker system.

1. Set to **On** and press **↵**.

The sound from the TV speaker is silenced and only the sound from the speaker system is audible.

2. Set to **Off** and press **↵**.

Speaker system is silenced and TV speaker is audible.

You need to use ARC-compatible cables/devices and connect to the HDMI 1 terminal to activate this function.

NOTE

- When you use "Speaker Output" make sure to use a HDMI cable 1.4 or upper.

Device List

If multiple HDMI devices are connected in a daisy chain, you can specify which device to control here.

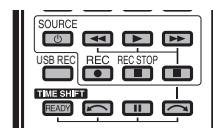
Press **▲/▼** to select "Model select", and then press **OK**. The HDMI device changes every time you press **OK**.

Device Scan

Search all HDMI devices connected to the TV.

Operating a HDMI CEC device

HDMI CEC allows you to operate the HDMI-connected device with a single remote control unit.



- 1 Press **▶** to start playback of a title.
- 2 Press **▶▶** to fast forward.
 - Press **◀◀** to reverse.
 - Press **REC** to start recording.
 - Press **REC STOP** to stop recording.
 - Press **■** to stop.
 - Press **||** to pause.
 - Press **SOURCE** to turn the HDMI-connected device on/off.

Connected TV

What is Connected TV?

Connected TV set to play easily digital media contents coming from the Network (Internet or Home).

Connected TV offers up to two different modes:

- Internet services support (BBC iPlayer (Only LE731 for UK), YouTube, and HbbTV).
- Media Streaming support for existing DLNA servers on your Home Network. In fact, user can play movies, listen to music or view pictures in the easiest way, even from playlist files (Media Player).

Connected TV provides a variety of services for each country.

NOTE

- Because Connected TV is an online system, it can be modified over time to better serve its purpose.
- Some Connected TV services may be added, changed or discontinued after some time.
- You cannot download and save neither files nor install plugins.
- Home Media (DLNA) requires external streaming media software installed on a PC, inside the HOME Network, that is not included with Connected TV.
- Home Media (DLNA) server software as Windows Media Player 11 (Windows Vista included) or Windows Media Player 12 (Windows 7 included), TVersity (www.tviversity.com), Nero Media Home (www.nero.com), or Twonky Media Manager (www.twonky.com) are preferred but other can be used also. Visit the DLNA website (www.dlna.org) to see the certified media server list. Follow the server software's user manual for setup, share and stream media contents.
- Home Media (DLNA) (Video, Music and Photo) data is organized in folders depending on the Server hierarchy; options such as Artist, Genre, Composer, Ratings, Playlist or Watch Folders may be present for sorting content, but can be different depending of the selected Media Server.
- The "Play To" function of some PC Media Players may result in very compressed video quality. For best video quality, please use the USB Media Player function of the TV.

DISCLAIMERS

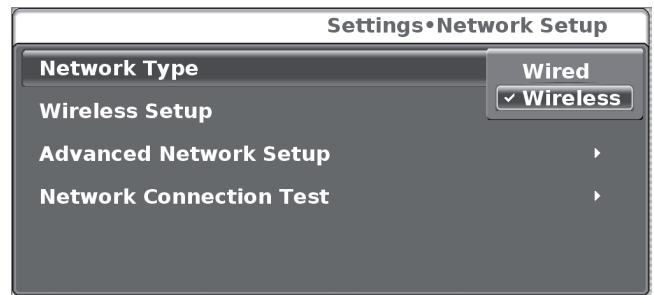
- SHARP corporation bears no responsibility regarding the content and quality of the content provided by the content service provider.

Internet setup

Connecting to the internet

To enjoy Connected TV, you need to connect the TV to a router with a high speed connection to the internet. The TV connection to the router can either be wired or wireless.

To access to the TV internet configuration go to **Settings→Network setup**. The next screen is shown:



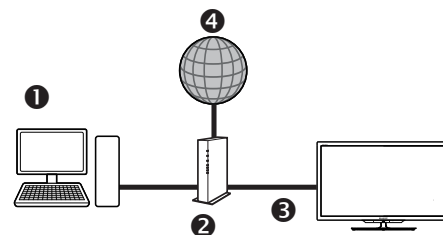
NOTE

- If you choose a wired connection to the router, you need an ETHERNET cable (not included, commercially available).
- If you do not have a broadband internet connection, consult the store where you purchased your TV or ask your internet service provider or telephone company.
- An ETHERNET and wireless connection cannot be used at the same time. Use only one of the connection types.
- A wireless LAN connection and performance cannot be guaranteed for all residential environments. In the following cases, the wireless LAN signal may be poor or drop, or the connection speed may become slower.
 - When used in buildings made with concrete, reinforced steel, or metal.
 - When placed near objects that obstruct the signal.
 - When used with other wireless devices that emit the same frequency.
 - When used in the vicinity of microwave ovens and other devices that emit a magnetic field, electrostatic charge, or electromagnetic interference.
- A stable connection speed is required to play back streaming content. Use an ETHERNET connection if the wireless LAN speed is unstable.

Wired installation

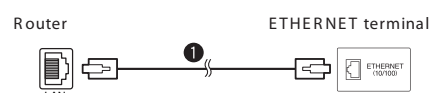
Use an ETHERNET cable to connect the ETHERNET terminal on the TV to your broadcast router as shown below. This is recommended when enjoying services which require stable connection speeds, such as streaming media.

● Wired connection overview



- ① PC (Home Media Server)
- ② Router (commercially available)
- ③ ETHERNET cable (commercially available)
- ④ Network (Internet)

● How to connect



- ① ETHERNET cable

1 Switch ON the router (commercially available). Refer to the router's operation manual for switching on.

Connected TV

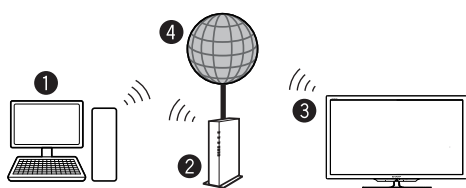
- 2 Connect the ETHERNET terminal on the TV to the router (commercially available) with an ETHERNET cable (commercially available).
- 3 Go to **SETTINGS** > **Network settings** > **Network type**.
- 4 Press **OK** and **▲/▼** to select **"Wired"**, and then press **OK**. The wired connection will be automatically established.

To change the settings manually go to **"Advanced Network Setup"** > **IP Address Setup** > **Off**, now you can introduce the settings manually.

Wireless installation

Use the SHARP (AN-WUD630) USB adapter (sold separately) with the TV.

• Wireless connection overview

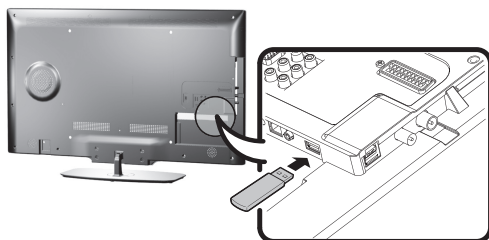


- 1 PC (Home Media Server)
- 2 Wireless LAN router/access point
- 3 Wireless AN-WUD630 LAN USB adapter (sold separately)
- 4 Network (Internet)

NOTE

- When using the SHARP wireless LAN adapter (sold separately), try to provide as much free space around the device for best performance.
- Make sure the firewalls in your network allows access to the TV wireless connection.
- Operations cannot be guaranteed when used with access points that do not have Wi-Fi® certification.
- A wireless LAN access point is required to connect the TV to the Internet using a wireless LAN. See the operation manual of your access point for setup.

• How to connect

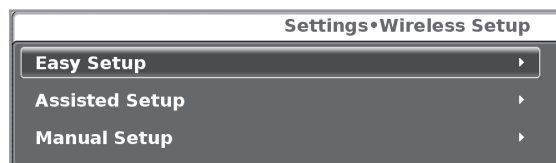


- 1 Switch on your router before starting the network installation.
- 2 Connect the AN-WUD630 USB adapter (sold separately) to the USB Wi-Fi port on the TV.
 - Do not use a wireless LAN adapter other than the AN-WUD630 Sharp wireless LAN adapter, as operations cannot be guaranteed.
 - If your wireless network is secured, have the encryption key ready to enter on screen.
- 3 Go to **"Settings"** > **Network settings** > **"Network type"**.
- 4 Press **OK** and **▲/▼** to select **"Wireless"**, and then press **OK**.

The **"Wireless"** connection will be automatically selected if the TV detects only the wireless USB adapter.

5 Select **"Wireless setup"**.

There are three ways to connect by wireless the TV to a network:



• Easy setup

- 1 Select **WPS configuration** and press **OK**. Press **▼** to select **"PBC"** and press **OK**.

- 2 Press **▼** to select **Start scan** and press **OK**.

- 3 Press the **WPS** button on the router/access point (AP). Wait until the connection is established.

- If connection failed, please be sure WPS feature is enabled (See the operation manual of your router/access point(AP) for setup.)
- In case of router/access point does not support WPS, write the encryption key for that network using the software keyboard. See **Assisted Setup** explanation.
- To establish the connection manually select **"PIN"**, press **OK**, select **Start scan** and press **OK**. Follow the on-screen instructions and the operation manual of the router/access point(AP).

• Assisted setup

Shows the network name list (SSID).

- 1 Select the network you want to connect.

- 2 If network is protected, introduce the encryption key using the software keyboard and press **Green** button.

- 3 Select **Done** and press **OK**.

The TV will connect to the network you have selected.

• Manual setup

Allows you to establish the wireless connection introducing all data manually.

• Advanced Network Setup

Allows you to introduce manually all network setup.

• Network Connection Test

Check the connection status

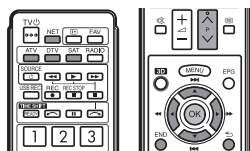
NOTE

- To connect your TV to the internet, you must have a broadband internet connection.
- If you do not have a broadband internet connection, consult the store where you purchased your TV or ask your internet service provider or telephone company.
- There is no need to enter the security key for subsequent connections to the wireless network.
- If your access point is set to a stealth mode (Hidden SSID, that prevents detection by other devices), you may not be able to establish a connection. In this case, disable the stealth mode on the access point.
- To change wireless LAN connection settings, go to **"Settings"** > **"Network Settings"**.
- Any low bandwidth adapter (router, hub, wireless access point,...) will show poor network connection and then, poor streaming quality. It's recommended 56 Mbps or higher bandwidth for full feature.
- Working close to other Wireless/Bluetooth network, can appear some trouble using Wi-Fi adapter on the Connected TV. Due to wireless link cannot be guarantee, please try to change Wi-Fi channel on Access Point (AP) for avoiding interferences. Please refer to Access Point User Manual.

Operations in Connected TV

Basic Operation

The illustrations on this page are for explanation purposes. They are subject to change without notice.



● Display the start page

Press **NET**.

NOTE

- When connect TV to the Internet, a message which requests a software update may display in some cases.

● Select a service

Press **▲/▼/◀/▶** to select the desired service, and then press **OK**.

- Press **P▲/▼** to scroll pages up/down (This may not work for some services).
- Press **↶** to return to the previous page (This may not work for some services).

● Exit Connected TV

Press **END/ATV/DTV/SAT**.

HbbTV (Hybrid Broadcast Broadband TV)

Some broadcasters bring you access to new services from entertainment providers such as broadcasters, online providers, including catch-up TV, video on demand (VoD), interactive advertising, personalisation, voting, games and social networking.

This function requires internet connection through the ETHERNET or the Wi-Fi adapter AN-WUD630 (optional accessory).

● HbbTV Enable

1. Press **MENU** → **Settings** and select "**HbbTV enable**" setting.
2. Select **On** to enable this function by pressing **OK**.
3. When the selected program offers this service it will be seen on screen. Just press the requested key to activate.
4. Then, the picture/list of available services will appear.
5. Follow the broadcaster instructions.



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USB REC function

USB REC function

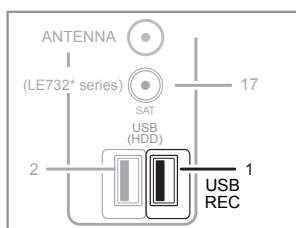
USB REC (Video Recorder)

USB REC function allows you to record a TV programme and watch it later. Also allows you to temporize one or more recording and they will be available for a later on view.

These recordings will not be lost when the TV is turned off.

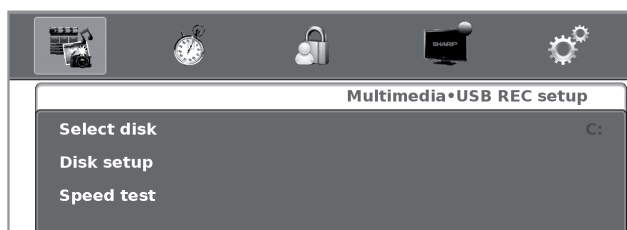
USB REC requires an external USB 2.0 memory, always connected and previously configured to record the information.

The USB 2.0 memory must be connected in USB1 terminal.



The USB 2.0 memory must be formatted before first use for USB REC function.

Go to **Multimedia>USB REC>USB REC Settings**, then press **OK**:



● Select disk

Only available in case that there are more than one partition in the external USB memory (Choose between C:, D:, etc.).

● Disk setup

You can choose the size of USB device which will be used for USB REC function, in 1GByte fractions. The USB device will be formatted.

ATTENTION:

- All the data in this device will be lost.
- In case that you have a USB device with partitions, all the data in the selected partition will be lost.

● Speed test

Allows to see the compatibility grade between USB memory and the TV set.

NOTES:

- The file system of USB device must be NTFS. If the device has other system, the TV set does not recognize it.
- The minimum USB 2.0 memory size to use with **USB REC** function is 1GByte.
- As a concept, **USB REC** can record up to 26 minutes on SD DTV/CADTV broadcasts and 7 minutes on HD DTV/CADTV broadcasts, for every GByte.

USB REC operation

USB REC can activate immediately recording by using **USB REC** on the remote control, or with a timer using data taken from **EPG** or programming an event manually. To use either method follow the instructions below:

● Immediate recording:

The recording starts when user decides:

- 1 Press **USB REC** on the remote control to start recording the current programme. REC symbol appears in the bottom left corner of the screen.
- 2 To stop recording the current programme, press **END** twice, change TV programme or input source, or switch- off the TV set.
- 3 Press **END** during playback mode to stop the playback and return to recording mode of current programme. The TV set continues recording and the **REC** symbol is shown on the screen.

While the recording is activated the **REC** symbol, the recording progress bar or playback progress bar will be displayed.



The bar shows the recording start time, current time and expected end, and the remaining recording time.

● Recording with timer

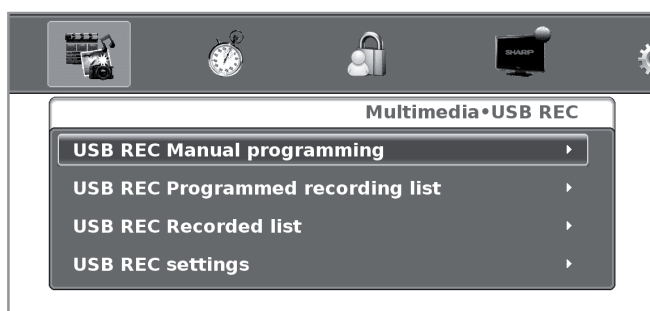
It can be programmed a recording by using two methods. Using the programme guide (EPG) or manually with the option "**USB REC Manual programming**" on the menu **USB REC**.

① Programming a timer with the EPG

1. Press **EPG** to select the programme you want to record. Then press **REC**.
2. Set up the recording parameters (auto, once, every day or weekly) and press **OK** to confirm.

② Programming with "USB REC Manual programming".

1. To activate a timer recording use the menu option **Multimedia > USB REC** and the option **USB REC Manual programming**. Press **OK**.

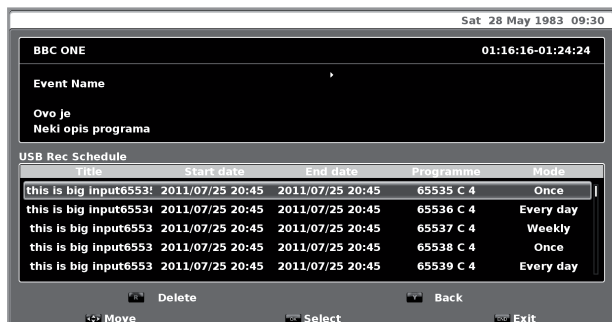


2. Set up the desired recording parameters (channel, mode, date, start time and end) and press **OK**.

Recordings and timings

● Recordings and timings

1. The timings will be stored in the **USB REC Programmed recording list** in the **USB REC** menu, pending to be executed.



2. All the finished recordings are available on the **"USB REC Recorded list"** in the **USB REC** menu. Select the file you want to view and press **OK**.



- Press **OK** to playback the programme being recorded. The TV set continues recording the broadcast while you are watching the recorded programme. The TV set shows ► symbol on the screen.
- Press **OK** during playback to pause. The TV shows the symbol || on the screen.
- Press ►► playback to fast forward. By pressing ►► key repeatedly, allows you to select the fast forward. By pressing ►►► key the recording fast forwards in intervals of five minutes. Press **OK** to restore the normal speed.
- Press ◀◀ during playback to rewind. By pressing ◀◀ key repeatedly, allows you to select the rewind speed. By pressing ◀◀ key the recording rewinds in intervals of five minutes. Press **OK** to restore the normal speed.

3. The TV set can start a timer recording while is in standby mode. When the recording starts in this mode, the status indicator (AQUOS pyramid) will change from red to violet.

NOTES:

- If you try to switch off the TV (**TV** on RC) during a USB recording, an on screen menu will appear. Then you can decide to switch off completely or continue with the recording until the end of the **USB REC Manual programming**. In case it is an **Immediate recording** (you pressed USB REC button), you can decide to switch off completely or continue with the recording during the time you decide, or stop the recording. In both cases, if you choose to continue with the recording, the TV will switch off, but continue showing the pyramid icon lighting in purple.
- If you switch off the TV through the **TV** on the panel control key, the USB recording will be stopped directly and the TV will be switched off.

4. The timer recordings are not possible when the TV set is off, this is when the status indicator (AQUOS pyramid) is not lit.

● Deleting recordings

To delete non desired recordings stored in USB device, follow the instructions below:

1. Go to **Multimedia > USB REC** and select **"USB REC Recorded list"**.
2. Select the recording you want delete.
3. Press **BLUE** button on the remote control.

The deletion process is irreversible and causes permanent loss of the recording.

NOTES:

- The USB REC recording function does not work for Radio, ATV channels or external inputs.
- It can appear displaying troubles during rewind or fast forward modes, depending on the USB memory characteristics.
- The recorded data will be never available for any external device (computer) or in other TV even if it is the same model. The recordings only can be displayed in the same TV in which they were made.
- Programmes which require a PIN to watch them cannot be recorded until you enter the PIN.

Enjoying 3D image viewing

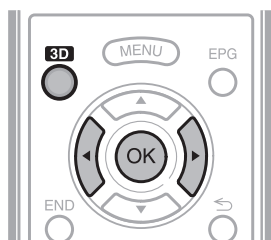
Enjoying 3D image viewing

You can enjoy 3D-supported images on the TV when you wear 3D glasses (AN-3DG20-B), sold separately.

Confirm how to use the 3D glasses before watching 3D-supported images. These 3D glasses are only for use with SHARP LCD TVs supporting 3D.

Viewing 3D images

- 1 Select the 3D source (HDMI).
- 2 Press "3D" button on Remote Control.



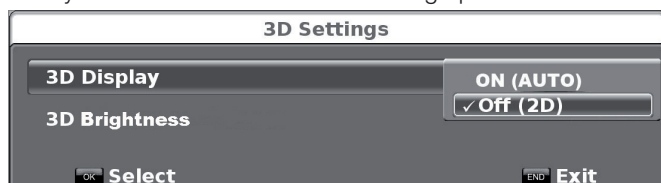
NOTE

- The TV screen may temporarily become black when the TV is trying to detect a 3D image signal and when switching from 3D to 2D mode.

Receiving a 3D image signal that can be detected automatically

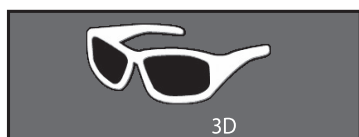
The image signal may contain a 3D identification signal. You can enable the TV to automatically detect the 3D image type.

- After pressing 3D button a screen appears prompting you to select between the following options.



● When "3D Display" is set to "ON (AUTO)"

The 3D display format is detected automatically and the appropriate 3D image is displayed.



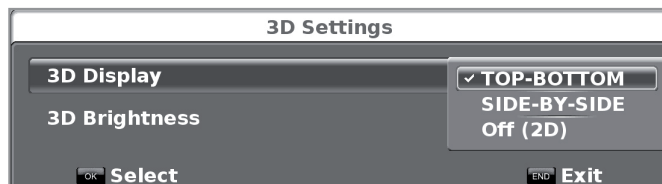
● When "3D Display" is set to "Off (2D)"

The image is displayed as 2D format.

Receiving a 3D image signal that cannot be detected automatically

When the TV receives a 3D image signal that cannot be detected automatically, you can select between 3D and 2D image viewing.

- 1 Select the 3D source (HDMI).
- 2 Press "3D" button on Remote Control. The following screen appears.



- 3 Press ◀/▶ to select "Top-Bottom", "Side-by-Side" or "Off(2D)", and then press OK.

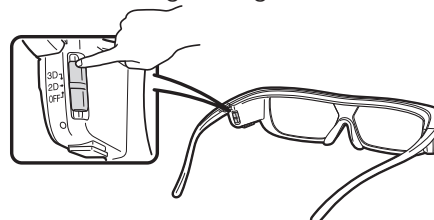
● To view in 3D mode (Top-Bottom or Side-by-Side)

- ① Press ▲/▼ to select the 3D signal type ("Side by Side" or "Top and Bottom"), and then press OK.

- If you select the same system as that of the input signal, 3D images are displayed.

- ② Turn on the 3D glasses switching them to "3D" and then wear the 3D glasses.

- The LED lights in green.



● To view in 2D mode

To view 2D mode without glasses:

- ① Press ▲/▼ to select the "Off (2D)", and then press OK.

To view 2D mode some of you at the same time than other people are viewing 3D mode:

- ① Follow up the step ① of previously described in "To view in 3D mode (Top-Bottom or Side-by-Side)".
- ② Turn on the 3D glasses switching to "2D" and then wear the 3D glasses.
 - The LED lights in green

NOTE

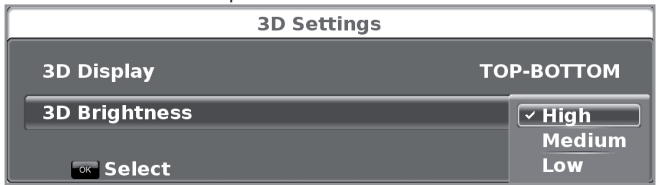
- After approximately 10 minutes without receiving 3D signal the 3D glasses turn off automatically.
- To power off the power of 3D glasses, switch them to Off. The LED will also turn off.

Enjoying 3D image viewing

Configuring the TV settings to enhance 3D image viewing

You can adjust the brightness of the TV for 3D image viewing.

- 1 Press **3D** button while you are viewing 3D image.
- 2 Press **▼** to select **3D Brightness** and press **OK**.
- 3 To adjust de brightness press **▲/▼** to choose between the options.



Item	
High	The screen brightens
Medium	↕
Low	The screen dims

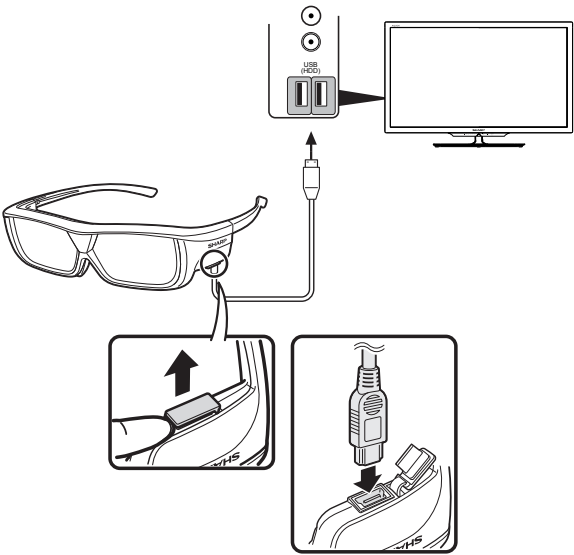
NOTE

- The "Backlight" adjust is not available for 3D image.
- In 3D mode some display settings may not be available.

Recharging the 3D glasses battery

When the battery power is low, the LED light blinks one time per second. If the 3D glasses battery runs out, you can recharge the 3D glasses battery by connecting the USB-mini USB cable, supplied with glasses, to any of the TV set side USB terminals or any other proper source.

When the LED light goes off, the recharge is complete.



Display format for 3D and 2D images

	Image for input signals	Selectable mode	Description
3D mode (using the 3D glasses)		3D	<ul style="list-style-type: none">• 3D images Auto mode.
		Side by Side	<ul style="list-style-type: none">• Creates 3D images from 3D images displayed side by side. The image is split into a left and right image, and then the images are stretched and displayed sequentially to create a 3D image.
		Top and Bottom	<ul style="list-style-type: none">• Creates 3D images from 3D images displayed on the top and bottom. The image is split into a top and bottom image, and then the images are stretched and displayed sequentially to create a 3D image.
2D mode (without using the 3D glasses)		Side by Side → 2D	<ul style="list-style-type: none">• Creates 2D images from 3D images displayed side by side. Only the left image is stretched and displayed. The image does not appear in 3D.
		Top and Bottom → 2D	<ul style="list-style-type: none">• Creates 2D images from 3D images displayed on the top and bottom. Only the top image is stretched and displayed. The image does not appear in 3D.

3D glasses lenses

- Do not apply pressure to the lenses of the 3D glasses. Also, do not drop or bend the 3D glasses.
- Do not scratch the surface of the lenses of the 3D glasses with a pointed instrument or other object. Doing so may damage the 3D glasses and reduce the quality of 3D images.
- Use only the cloth provided with the 3D glasses to clean the lenses.

3D glasses infrared receiver

- Do not allow the infrared receiver to become dirty, and do not attach stickers to or otherwise cover the infrared receiver. Doing so may prevent the receiver from operating normally.
- If the 3D glasses are affected by other infrared data communication equipment, 3D images may not be displayed correctly.

Caution during viewing

- Do not use devices that emit strong electromagnetic waves (such as cellular phones or wireless transceivers) near the 3D glasses. Doing so may cause the 3D glasses to malfunction.
- The 3D glasses cannot operate fully at extreme high or low temperatures. Use them within the specified usage temperature range.
- If the 3D glasses are used in a room with fluorescent lighting (50/60 Hz), the light within the room may appear to flicker. In this case, either darken or turn off the fluorescent lights when using the 3D glasses.
- Wear the 3D glasses correctly. 3D images will not be correctly visible if the 3D glasses are worn upside down or back-to-front.
- Other displays (such as computer screens, digital clocks, and calculators) may appear dark and difficult to view while wearing the 3D glasses. Do not wear the 3D glasses when watching anything other than 3D images.
- If you lie on your side while watching the TV with 3D glasses, the picture may look dark or may not be visible.
- Be sure to stay within the viewing angle and optimum TV viewing distance when watching 3D images. Otherwise, you may not be able to enjoy the full 3D effect.
- The 3D glasses may not work properly if there is any other 3D product or electronic device turned on near the glasses or TV. If this occurs, turn off the other 3D product or electronic device or keep the device as far away as possible from the 3D glasses.
- Stop using this product in any of the following situations:
 - When images consistently appear doubled while you are wearing the 3D glasses.
 - When you have difficulty perceiving the 3D effect.
- If the 3D glasses are faulty or damaged, stop using them immediately. Continued use of the 3D glasses may cause eye fatigue, headaches and illness.
- If you have any abnormal skin reaction, stop using the 3D glasses. In very rare instances, such reactions may be due to an allergic reaction to the coating or materials used.
- If your nose or temples become red or you experience any pain or itchiness, stop using the 3D glasses. Pressure caused by long periods of use may lead to such reactions and may result in skin irritation.
- You may not be able to use several menu items while you are watching the TV in 3D mode.
- You cannot use the 3D function in radio or data mode.

NOTE

- These 3D glasses are only for use with SHARP LCD TVs supporting 3D.

Troubleshooting - 3D Images

Problem	Possible solution
<ul style="list-style-type: none">• 3D images are not displayed.	<ul style="list-style-type: none">• Is "3D auto change" set to "No"? Press 3D to switch to 3D mode.• If "3D auto change" is set to "Yes" but no 3D images are displayed, check the display format of the content being viewed. Some 3D image signals may not be recognized as 3D images automatically. Press 3D to select the appropriate display format for the 3D image.• Are the 3D glasses set to 3D mode?• Is there an obstacle between the 3D glasses and the TV, or is something covering the infrared receiver on the 3D glasses? The 3D glasses operate by receiving a signal from the TV. Do not place anything between the 3D infrared emitter on the TV and the infrared receiver on the 3D glasses.
<ul style="list-style-type: none">• The 3D glasses turn off automatically.	<ul style="list-style-type: none">• Is there an obstacle between the 3D glasses and the TV, or is something covering the infrared receiver on the 3D glasses? The 3D glasses turn off automatically after three minutes if no signal is received from the TV. Do not place anything between the 3D infrared emitter on the TV and the infrared receiver on the 3D glasses.
<ul style="list-style-type: none">• Switching the 3D glasses button to 2D or 3D does not cause the LED light to green.	<ul style="list-style-type: none">• Is the battery in the 3D glasses exhausted? If the LED light does not light after pressing the power button for more than one second, the battery is exhausted. Recharge the battery via mini USB connector.

Appendix

Abbreviation list

Abbreviated term	Stands for
ATV	Analogue TV
CEC	Consumer Electronics Control
DNR	Digital Noise Reduction
DTV	Digital TV
CADTV	Cable Digital TV
DVB-T	Digital Video Broadcasting-Terrestrial
DVB-C	Digital Video Broadcasting-Cable
DVI	Digital Visual Interface
EPG	Electronic Programme Guide
HDCP	High-bandwidth Digital Content Protection
HDMI	High-Definition Multimedia Interface
MHEG	Multimedia and Hypermedia Expert Group
OSD	On Screen Display
PCM	Pulse Code Modulation
USB	Universal Serial Bus
WSS	Wide Screen Signalling
DLNA	Digital Living Network Alliance
LNB	Low-Noise Block converter

Information on the software license for this product

Software composition

The software included in this product is comprised of various software components whose individual copyrights are held by SHARP or by third parties.

Software developed by SHARP and/or third part

The copyrights for the software components and various relevant documents included with this product that were developed or written by SHARP are owned by SHARP and are protected by the Copyright Act, international treaties, and other relevant laws. This product also makes use of freely distributed software and software components whose copyrights are held by third parties.

Troubleshooting

Problem	Possible Solution
<ul style="list-style-type: none"> No power. 	<ul style="list-style-type: none"> Check if you pressed TV on the remote control unit. If the indicator on the TV lights up red, press TV. Is the AC cord disconnected? Check if you pressed ⏻ on the TV.
<ul style="list-style-type: none"> The TV cannot be operated. 	<ul style="list-style-type: none"> External influences such as lightning, static electricity, etc., may cause improper operation. In this case, operate the TV after first turning off the power, or unplugging the AC cord and re-plugging it in after one or two minutes.
<ul style="list-style-type: none"> Remote control unit does not operate. 	<ul style="list-style-type: none"> Are batteries inserted with polarity (+, -) aligned? Are batteries worn out? (Replace with new batteries.) Are you using it under strong or fluorescent lighting? Is a fluorescent light illuminating to the remote control sensor?
<ul style="list-style-type: none"> Picture is cut off. 	<ul style="list-style-type: none"> Is the image position correct? Are screen mode adjustments (Picture format) such as picture size made correctly? (Page 26.)
<ul style="list-style-type: none"> Strange colour, light colour, or dark colour, or colour misalignment. 	<ul style="list-style-type: none"> Adjust the picture tone. Is the room too bright? The picture may look dark in a room that is too bright. Check the "Picture" setting (Page 19).
<ul style="list-style-type: none"> Power is suddenly turned off. 	<ul style="list-style-type: none"> The TV's internal temperature has increased. Remove any objects blocking the vent or clean. Is the "Sleep Timer" set? Select "Off" from the "Time" menu (Page 21). Is "No Signal Off" or "No operation Off" activated?
<ul style="list-style-type: none"> No picture. 	<ul style="list-style-type: none"> Are connections to external equipment correct? (Pages 13, 14 and 15) Is the input signal type selected correctly after connection? (Page 10) Is the correct input source selected? (Page 10) Is the picture adjustment correct? (Pages 19) Is the antenna connected properly? (Page 8)
<ul style="list-style-type: none"> No sound. 	<ul style="list-style-type: none"> Is the volume too low? Make sure that headphones are not connected. Check if you pressed ⏻ on the remote control unit.
<ul style="list-style-type: none"> The TV sometimes makes a cracking sound. 	<ul style="list-style-type: none"> This is not a malfunction. This happens when the cabinet slightly expands and contracts according to changes in temperature. This does not affect the TV's performance.

Environmental Specifications

		40"	46"
*1 On-Mode (W) (HOME MODE)		48 W	60 W
*2 Energy-Save-Mode (W)	ECO	39 W	55 W
*3 Standby-Mode (W)		0.21 W	0.21 W
*4 Off Mode (W)		0.16 W	0.16 W
*5 Annual Energy Consumption (kWh)		70 kWh	88 kWh
*6 Annual Energy Consumption Energy-Save-Mode (kWh)	ECO	57 kWh	80 kWh

*1 Measured according to IEC 62087 Ed. 2.

*2 For further information about the Energy Save function, please see related pages in this operation manual.

*3 Measured according to IEC 62301 Ed. 1.

*4 Measured according to IEC 62301 Ed. 1.

*5 Annual energy consumption is calculated on the basis of the On-Mode (HOME MODE) power consumption, watching TV 4 hours a day, 365 days a year.

*6 Annual energy consumption is calculated on the basis of the Energy-Save-Mode power consumption, watching TV 4 hours a day, 365 days a year.

Specifications

Item			40” LCD COLOUR TV, Models: LC-40LE730E, LC-40LE731E, LC-40LE732E	46” LCD COLOUR TV, Models: LC-46LE730E, LC-46LE731E, LC-46LE732E
LCD Panel			40” BLACK TFT LCD LED TV	46” BLACK TFT LCD LED TV
Resolution			6.220.800 dots (1.920 x 1.080 pixels)	
Video Colour System			PAL/SECAM/NTSC 3.58/NTSC 4.43/PAL 60	
TV Functions	TV Standard	Analogue	CCIR (B/G, I (LE731 for UK and Ireland only), D/K, L/L’)	
		Digital	DVB-T (2K/8K OFDM)(H.264), DVB-C, DVB-T2 (LE731 only), DVB-S/S2 (LE732 only)	
	Receiving Channel	VHF/UHF	E2–E69 ch, F2–F10 ch, I21–I69 ch, IR A–IR J ch (Digital: IR A ch–E69 ch)	
		CATV	Hyper-band, S1–S41 ch	
	TV-Tuning System		Auto Preset 999 ch: non-Nordic / 9999 ch: Nordic (ATV: 99 ch), Auto Label, Auto Sort	
	STEREO / BILINGUAL		NICAM/A2	
Viewing angles			H: 176°, V: 176°	
Audio Amplifier			10 W + 5 W + 5 W	
Speaker			Woofer Ø 70 mm, tweeter (Ø 11 mm) x 2	
Terminals	TV Antenna		UHF/VHF 75 Ω Din type (Analogue & Digital)	
	SERVICE		Ø 3.5 mm jack	
	SCART		SCART (AV input, RGB input, TV output, Y/C input)	
	PC INPUT		VGA (D-Sub 15pin), Ø 3.5 mm jack (shared with HDMI)	
	COMPONENTS		COMPONENT IN: Y/PB(CB)/PR(CR), RCA (AUDIO R/L)	
	HDMI1		HDMI, Ø 3.5 mm jack (shared with PC INPUT), ARC, 3D.	
	HDMI2		HDMI, Ø 3.5 mm jack (shared with PC INPUT), 3D.	
	HDMI3		HDMI, Ø 3.5 mm jack (shared with PC INPUT), 3D.	
	HDMI4 (Rear)		HDMI, Ø 3.5 mm jack (shared with PC INPUT), 3D.	
	USB 1 (USB REC / Media Player / HDD Ready / 3D Glasses charge)		USB 2.0 HOST (A Type)	
	USB 2 (Media Player / HDD Ready 3D Glasses charge)		USB 2.0 HOST (A type)	
	USB 3 (WIFI)		USB 2.0 HOST (A type) (Wi-Fi use only)	
	ETHERNET (10/100)		Network connector	
	AV		RCA connector (AV input)	
	SPDIF OUT		Optical S/PDIF digital audio output.	
	C. I. (Common Interface)		EN50221, R206001, CI+ specification	
	Headphones		Ø 3.5 mm jack (Audio output)	
OSD language			Czech, Danish, Dutch, English, Estonian, Finnish, French, German, Greek, Hungarian, Italian, Latvian, Lithuanian, Norwegian, Polish, Portuguese, Russian, Slovak, Slovene, Spanish, Swedish, Turkish, Ukrainian, Byelorussian, Romanian, Croatian, Serbian.	
Power Requirement			AC 220–240 V, 50 Hz	
Power Consumption (IEC62087 Method)			102W (0.21 W Standby)	124W (0.21 W Standby)
Weight			12.2 Kg (Without stand), 14.4 Kg (With stand)	16.7Kg (Without stand), 19.7 Kg (With stand)
Operating Temperature			0 °C to +40 °C	

EU Energy Label for Televisions

On 30 November, 2010 the European Commission adopted the Commission Delegated Regulation (EU) No 1062/2010 with regard to energy labelling of televisions.

The Regulation entered into force on 20 December 2010 and applies in all Member States.

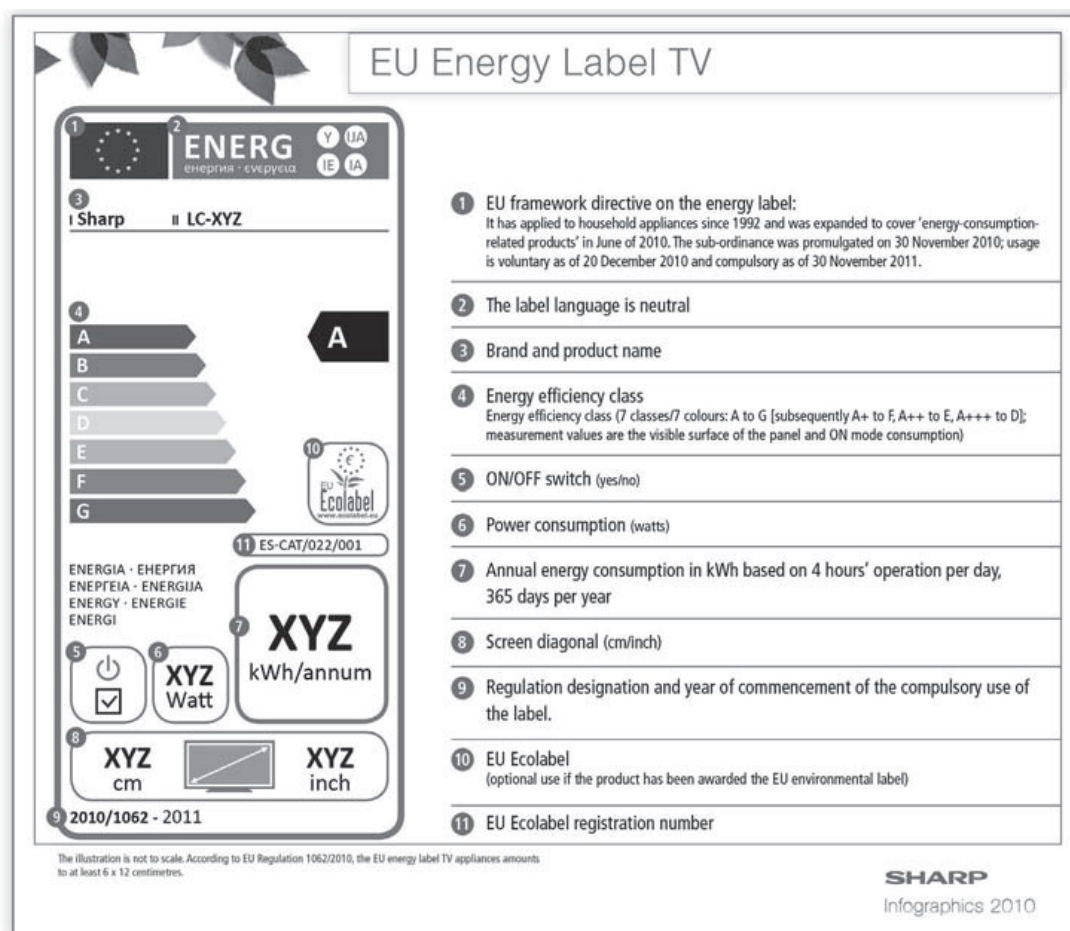
Manufacturers and dealers are required to display the label shown below, on their televisions from 30 November 2011.

The label provides information to assist consumers in evaluating televisions for energy efficiency and energy consumption and to make a purchasing decision that contributes to the protection of the environment and to a lower carbon society.

The figure below shows the label design and explains the information included. For further information please visit the Sharp internet homepage (<http://www.sharp.eu>).

The retailer or online shop where you purchased your television from would have displayed the label and its corresponding rating. If in doubt please consult them.

In addition to saving energy many Sharp LCD televisions also carry the EU Ecolabel, a voluntary environmental label that is awarded to goods which meet the environmental requirements of the EU ecolabelling scheme (for details see <http://ec.europa.eu/environment/ecolabel/>). This voluntary label enhances further the environmental credentials of our televisions.



NOTE

- Methods for calculating the Energy Efficiency Index and the annual on-mode energy consumption are set out in Annex II of Regulation (EU) No 1062/2010. The determination of the on-mode consumption is based on the international standard IEC 62087 Ed. 2.

Information on the EU Eco-label



Sharp LCD-TV with an EU Eco-label

This product has officially been awarded the Eco-label of the European Union, "The Flower" (for details see EU Commission Decision 2009/300/EC - OJ L 82/3 dated 28.3.2009).

Sharp is the first company to achieve this Eco-label for TVs thus demonstrating its commitment to improving our environment.

The Flower is granted only to the products that meet rigorous criteria and demonstrate positive contributions towards a better environment. Further information can be found at:

<http://www.ecolabel.eu>

What makes this Sharp product ecologically outstanding?

This TV set uses a Liquid Crystal Display (LCD) instead of the classical Cathode Ray Tube (CRT). Some of the advantages are:

- Design for high energy efficiency. This cuts energy consumption and saves money.
- Reduced energy consumption during use and stand-by. Energy savings in different modes are possible (see Appendix in this operation manual.)
- The lifetime of the background light is approx. 2.5 times longer than that of a CRT.
- This TV complies with the chemical requirements of the EU Eco-label.
- A minimum of two year functionality are granted in all EU-states.
- Spare parts will be available after ceasing the production of this model for:
 - seven years, for electrical components
 - five years, for mechanical parts
 - four years, for decorative parts
- This product has been designed for easy disassembly, recovery and recycling and should not be discarded with your ordinary household waste – for further details please refer to the "Information on Proper Disposal" mentioned in this operation manual.
- Should repair become necessary, please contact your retailer. You can also contact your local Sharp approved service centre (see Sharp local website).

What can you do to contribute towards helping to protect the environment?

- Please do not leave your TV in stand-by mode, unplug it when it is not used for a long time. There is zero energy consumption if you unplug your TV or nearly zero watt if the TV has a hard-off-switch. The location is described in this operation manual.
- The energy consumption in the on-mode can be reduced by lowering the brightness of the backlight when the unit is in operation. This will reduce overall running costs.

End of life disposal



Attention: Your product is marked with this symbol. It means that used electrical and electronic products should not be mixed with general household waste. There is a separate collection system for these products.

A. Information on Disposal for Users (private households)

1. In the European Union

Attention: If you want to dispose of this equipment, please do not use the ordinary dust bin!

Used electrical and electronic equipment must be treated separately and in accordance with legislation that requires proper treatment, recovery and recycling of used electrical and electronic equipment.

Following the implementation by member states, private households within the EU states may return their used electrical and electronic equipment to designated collection facilities free of charge*. In some countries* your local retailer may also take back your old product free of charge if you purchase a similar new one.

*) Please contact your local authority for further details.

If your used electrical or electronic equipment has batteries or accumulators, please dispose of these separately beforehand according to local requirements.

By disposing of this product correctly you will help ensure that the waste undergoes the necessary treatment, recovery and recycling and thus prevent potential negative effects on the environment and human health which could otherwise arise due to inappropriate waste handling.

2. In other Countries outside the EU

If you wish to discard this product, please contact your local authorities and ask for the correct method of disposal.

For Switzerland: Used electrical or electronic equipment can be returned free of charge to the dealer, even if you don't purchase a new product. Further collection facilities are listed on the homepage of www.swico.ch or www.sens.ch.

B. Information on Disposal for Business Users

1. In the European Union

If the product is used for business purposes and you want to discard it:

Please contact your SHARP dealer who will inform you about the take-back of the product. You might be charged for the costs arising from take-back and recycling. Small products (and small amounts) might be taken back by your local collection facilities.

For Spain: Please contact the established collection system or your local authority for take-back of your used products.

2. In other Countries outside the EU

If you wish to discard of this product, please contact your local authorities and ask for the correct method of disposal.



The battery supplied with this product contains traces of Lead.

For EU: The crossed-out wheeled bin implies that used batteries should not be put to the general household waste! There is a separate collection system for used batteries, to allow proper treatment and recycling in accordance with legislation. Please contact your local authority for details on the collection and recycling schemes.

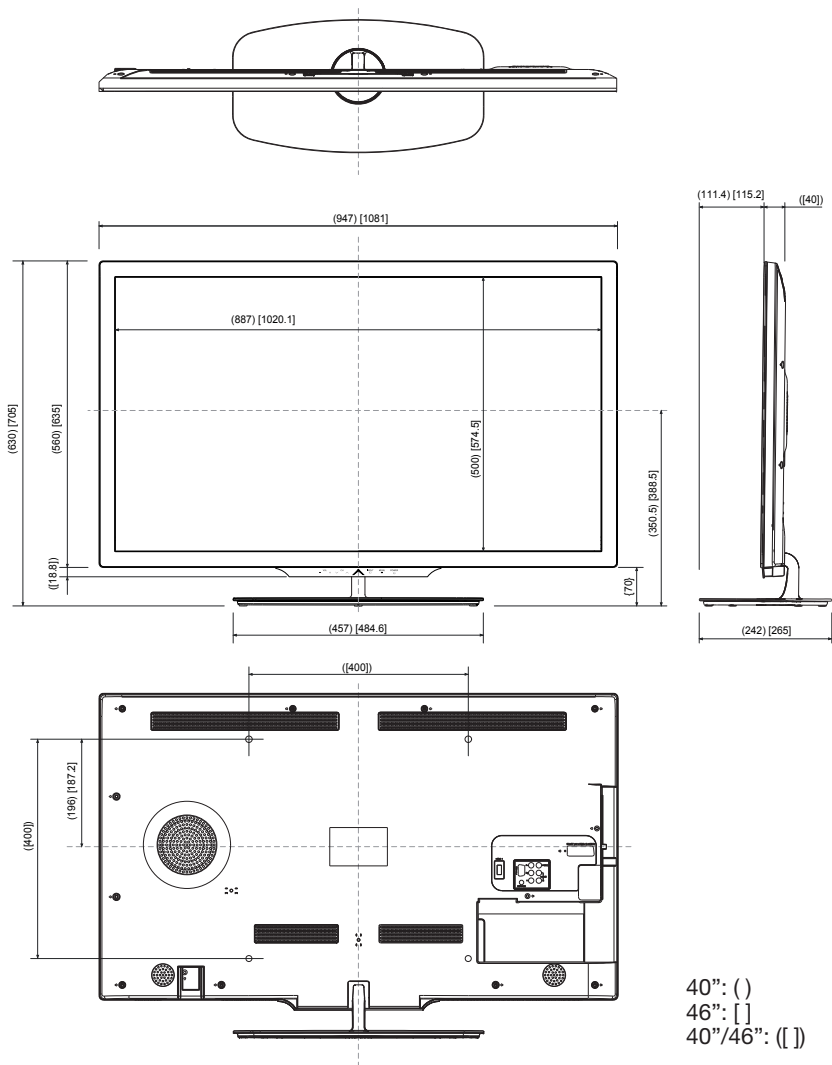
For Switzerland: The used battery is to be returned to the selling point.

For other non-EU countries: Please contact your local authority for correct method of disposal of the used battery.

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LC-46LE730E LC-46LE731E LC-46LE732E



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